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Habe

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**77 Additional Marine Bivalve Species from Wakayama Prefecture  
— A Supplement to A CATALOGUE OF MOLLUSCS OF  
WAKAYAMA PREFECTURE,  
THE PROVINCE OF KII-I. by T. Habe**

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In 1981, Tadashige Habe published a comprehensive catalogue of the bivalve mollusks of Wakayama Prefecture that has since become a fundamental source for the study of the subtropical and warm temperate bivalve fauna around Japan. Various investigators and shell collectors, including Takashi Okutani, Kin'ichi Sakurai, Eiji Tsuchida, Taiji Kurozumi, Shin'ichi Ikebe, and Yasuo Koyama, have since collected and reported a number of additional bivalves. In this paper the author records 77 marine bivalve species from Wakayama Prefecture collected mainly by Messrs. Tanaka, Nagai, Tsuchida, Ikebe and Koyama. This work is chiefly based on a manuscript and photographs prepared by Yasuo Koyama. The original citation, bibliography and some important synonyms are given for each species. Some are not illustrated, because no specimens were examined. Almost all the material studied is currently housed in the Wakayama Prefecture Museum in Kainan City. Bivalve specimens donated by Shin'ichi Ikebe to the Kyushu University Museum were also examined.

The author thanks Bernard Métivier, Paul Valentich Scott, and Paul Callomon for providing valuable support and advice.

**Class BIVALVIA Linnaeus, 1758** Nimaigai-ko

**Subclass PROTOBRANCHIA Pelseneer, 1889** Gensai-ako

**Family Nuculidae Gray, 1824** Kurumigai-ka

**Genus *Nucula* Lamarck, 1799** Mame-kurumigai-zoku

1799 *Nucula* Lamarck, Mem. Soc. Hist. Nat. Paris, 87. Type (M): *Arca nucleus* Linnaeus, 1758.

*Nucula* sp. Pl. 3, fig. 1.

Loc. Off Shionomisaki, 650 m (Nagai).

Remarks. Shell small, not exceeding 4 mm in length, subtrigonal, with distinct prodissoconch. Outer surface nearly smooth, except for irregularly scattered growth lines and faint radial threads. Inner ventral margin finely crenulated.

**Family Malletiidae H. & A. Adams, 1858** Sumizome-sodegai-ka

**Genus *Bathymalletia* Kuroda & Habe, 1971** Sumizome-sodegai-zoku

1971 *Bathymalletia* Kuroda & Habe in Kuroda et al., Sea Shells Sagami Bay, 504-505, 318. Type (OD): *Malletia inaequilateralis* Habe, 1951.

- Bathymalletia takaii* (Okutani, 1968) Takai-sodegai (Kuroda) Pl. 3, fig. 5.  
 1968 *Malletia takaii* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (56), 11-12, pl. 1, fig. 3.  
 1977 *Bathymalletia takaii*: Habe, Syst. Moll. Japan, Biv. Scaph., 19.  
 1985 *Bathymalletia takaii*: Tsuchida, Nanki-Seibutsu, 27(2), 98, pl. 2, fig. 10.  
 1994 *Bathymalletia takaii*: Tsuchida, Bull. Mar. Sci. Fish. Kochi Univ., (14), 75, pl. 1, figs. 5-6.  
 1999 *Malletia takaii*: Higo et al., Cat. Bib. Mar. Shell-bear. Moll. Japan, 410.  
 2000 *Pseudomalletia takaii*: Kurozumi & Tsuchida, Mar. Moll. Japan, 836-837, pl. 416, figs. 1a-b.  
 Loc. Off Tanabe, 975-1112 m (Tsuchida), southwest of Kushimoto, 500 m (Nagai), and off Shionomisaki, 650 m (Nagai).  
 Dist. Off Miyake Is. (type locality). Izu Archipelago to Shikoku.

**Family Neilonellidae Schyleiko, 1989 Hatomugi-sodegai-ka**

**Genus Neilonella Dall, 1881 Hatomugi-sodegai-zoku**

- 1881 *Neilonella* Dall, Bull. Mus. Com. Zool. Harvard, 9, 125. Type (OD): *Leda* (*Neilonella*) *corpulenta* Dall, 1881.
- Neilonella soyoae* Habe, 1958 Soyo-hatomugi-sodegai (Habe) Pl. 3, fig. 2.  
 1958 *Neilonella soyoae* Habe, Publ. Seto Mar. Biol. Lab., 6 (3), 245.  
 1961 *Neilonella soyoae*: Habe, Col. Ill. Shells Japan, 2 (ed. 1), 108, pl. 48, fig. 11.  
 1966 *Neilonella soyoae*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (46), 5.  
 1968 *Neilonella soyoae*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (56), 11.  
 1985 *Neilonella soyoae*: Tsuchida, Nanki-Seibutsu, 27 (2), 98, pl. 2, fig. 11.  
 1995 *Neilonella soyoae*: Tsuchida & Kurozumi, Jour. Nat. Hist. Mus. Inst. Chiba, 3(2), 183, figs. 9-2, 9-3.  
 2000 *Neilonella soyoae*: Kurozumi & Tsuchida, Mar. Moll. Japan, 836, 839, pl. 416, fig. 3.  
 Loc. Off Tanabe, 975-1112 m (Tsuchida), southwest of Kushimoto, 500 m (Nagai), off Shionomisaki, 280 m (Nagai).  
 Dist. Off Yakushima Is., Kagoshima Pref. (type locality). Choshi to southern Kyushu (Habe, 1961).
- Neilonella japonica* Okutani, 1962 Nippon-hatomugi-sodegai (Okutani) Pl. 3, fig. 3.  
 1962 *Neilonella japonica* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 7-8, pl. 1, figs. 3, 6, pl. 4, fig. 6.  
 1966 *Neilonella japonica*: Okutani, Bull. Tokai Reg. Fish. Lab., (46), 5.  
 1968 *Neilonella japonica*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (56), 10-11.  
 1985 *Neilonella japonica*: Tsuchida, Nanki-Seibutsu, 27(2), 98.  
 1994 *Neilonella japonica*: Tsuchida, Bull. Mar. Sci. Fish. Kochi Univ., (14), 76, pl. 1, fig. 7.  
 2000 *Neilonella japonica*: Kurozumi & Tsuchida, Mar. Moll. Japan, 836, 839, pl. 416, fig. 4.  
 Loc. Off Tanabe, 975-1112 m (Tsuchida, type locality), off Shionomisaki, 1400 m (Nagai).  
 Dist. Sagami Bay (type locality) to off Kochi, Shikoku.
- Neilonella kirai* Habe, 1953 Kira-hatomugi-sodegai (Oyama) Pl. 3, fig. 4.  
 1953 *Neilonella kirai* Habe, Venus, 17(3): 131, 137.  
 1961 *Saccella kirai*: Habe, Col. Ill. Shells Japan, 2, 108, pl. 48, fig. 14.  
 2000 *Jupiteria* (*Costanuculana*) *kirai*: Kurozumi & Tsuchida, Mar. Moll. Japan, 840, 843, pl. 418, fig. 23.

Loc. Off Kii-Oshima Is., 200 m (Nagai).  
 Dist. Tosa Bay (type locality) to Kyushu.

**Family Tindariidae Verrill & Bush, 1897** Mijin-sodegai-ka

**Genus *Tindaria* Bellardi, 1875** Mijin-sodegai-zoku

1875 *Tindaria* Bellardi, Monogr. Nuculidi Terr. Terz. Piemonte e Liguria, 28. Type (M):  
*Tindaria arata* Bellardi, 1875.

*Tindaria* cf. *similis* Okutani, 1962 Fukami-sodegai (Okutani), Yomosugara-sodegai (Shikama) Pl. 3, fig. 6.

1962 *Tindaria similis* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 6-7, pl. 1, fig. 4; pl. 4, fig. 12.

2000 *Tindaria similis*: Kurozumi & Tsuchida, Mar. Moll. Japan, 838-839, pl. 417, fig. 2.

Loc. Off Wabuka, Kushimoto, 600 m (Nagai).

Dist. Off Aogashima Is., Izu Archipelago, 3150-3350 m (type locality).

**Family Nuculanidae H. & A. Adams, 1858** Robaigai-ka

**Genus *Nuculana* Link, 1807** Shiwa-robaigai-zoku

1807 *Nuculana* Link, Besch. Nat. Samml. Univ. Rostock, (3), 155. Type (M): *Arca rostrata* Chemnitz, 1774 (n.n.) [= *Arca pernula* Mueller, 1779].

**Subgenus *Thestyleda* Iredale, 1929** Arabori-robaigai-azoku

1929 *Thestyleda* Iredale, Rec. Austral. Mus., 17, 158, 187. Type (OD): *Leda lamsayi* E. A. Smith, 1885.

*Nuculana* (*Thestyleda*) *sagamiensis* Okutani, 1962 Sagami-arabori-robaigai (Shikama) Pl. 3, fig. 7.

1962 *Nuculana (Thestyleda) sagamiensis* Okutani, Bull. Tokai Reg. Fish. Res. Lab. (32), 10-11, pl. 1, figs. 8-9; pl. 4, fig. 4.

1968 *Nuculana (Thestyleda) sagamiensis*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (56), 12-13.

1977 *Nuculana (Thestyleda) sagamiensis*: Habe, Syst. Moll. Japan, Biv. Scaph., 21.

2000 *Nuculana (Thestyleda) sagamiensis*: Kurozumi & Tsuchida, Mar. Moll. Japan, 840-841, pl. 418, figs. 11a-b.

Loc. Off Shionomisaki, 180-200 m (Nagai).

Dist. Sagami Bay (type locality). Southern Hokkaido to Kii Peninsula.

*Nuculana (Thestyleda) subscalata* Okutani, 1962 Tsugino-enaga-robaigai (Okutani) Pl. 4, fig. 1.

1962 *Nuculana (Thestyleda) subscalata* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 9-10, pl. 1, figs. 17-18.

1968 *Nuculana (Thestyleda) subscalata*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (56), 12.

1985 *Nuculana subscalata*: Tsuchida & Okutani, Venus, 44 (3): 151-152, pl. 1, fig. 4.

2000 *Nuculana (Thestyleda) subscalata*: Kurozumi & Tsuchida, Mar. Moll. Japan, 840-841, pl. 418, fig. 14.

Loc. Off Shionomisaki, 1200 m (Nagai).

Dist. Off Izu-Oshima (type locality) and Miyakejima Is.; Sagami Bay.

*Nuculana (Thestylea) tanseimaruae* Tsuchida & Okutani, 1985 (Tansei-) Enaga-robaigai (Tsuchida & Okutani) Pl. 2, fig. 1.

1962 *Nuculana (Thestylea) scalata* (not Prashad, 1932): Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 9, pl. 1, fig. 19.

1985 *Nuculana tanseimaruae* Tsuchida & Okutani, Venus, **44**(3), 149-152, 154, pl. 1, figs. 1-3, pl. 2, figs. 1, 3.

1995 *Nuculana (Thestylea) tanseimaruae*: Tsuchida & Kurozumi, Jour. Nat. Hist. Mus. Inst. Chiba, **3**(2), 183-184, figs. 9-4, 9-5.

2000 *Nuculana (Thestylea) tanseimaruae*: Kurozumi & Tsuchida, Mar. Moll. Japan, 840-841, pl. 418, fig. 16.

Loc. Kii Channel, 455-492 m (Tsuchida & Okutani, type locality); off Wabuka, Kushimoto, 600 m (Nagai); off southwest of Shionomisaki, 600 m (Nagai); off Shionomisaki, 450-500 m (Nagai).

Dist. Kii Channel.

*Nuculana (Thestylea) kiiensis* Tsuchida & Okutani, 1985 Kii-shakushi-robaigai (Tsuchida & Okutani)

1985 *Nuculana kiiensis* Tsuchida & Okutani, Venus, **44**(3), 152-155, pl. 1, figs. 5-7, pl. 2, figs. 2, 4.

1995 *Nuculana (Thestylea) kiiensis*: Tsuchida & Kurozumi, Jour. Nat. Hist. Mus. Inst. Chiba, **3**(2), 185, fig. 6.

2000 *Nuculana (Thestylea) kiiensis*: Kurozumi & Tsuchida, Mar. Moll. Japan, 840-841, pl. 418, fig. 15.

Dist. Kii Channel.

Loc. Kii Channel, 353-416 m (Tsuchida & Okutani, type locality); off Boso Peninsula, 507-578 m (Tsuchida & Kurozumi, 1995).

*Nuculana (Thestylea) kawamurai* Habe, 1961 Kawamura-robaigai (Habe)

1961 *Nuculana kawamurai* Habe, Col. Ill. Shells Japan, **2**, 109, app. 35, pl. 48, fig. 25.

2000 *Nuculana (Thestylea) kawamurai*: Kurozumi & Tsuchida, Mar. Moll. Japan, 838, 841, pl. 417, fig. 7.

Loc. Off Kushimoto, 230 m (Nagai), southwest of Kushimoto, 300 m (Nagai).

Dist. Off Choshi (type locality) to Enshunada Sea.

### Genus *Tenuileda* Habe, 1977 Kagero-sodegai-zoku

1977 *Tenuileda* Habe, Syst. Moll. Japan, Biv. Scaph., **21**, 23. Type (OD): *Nuculana conceptionis ikebei* Suzuki & Kanehara, 1936.

*Tenuileda ikebei* (Suzuki & Kanehara, 1936) Kagero-sodegai (Habe) Pl. 4, fig. 2.

1936 *Nuculana conceptionis ikebei* Suzuki & Kanehara, Jour. Geol. Soc. Japan, **43** (510), 182, pl. 10, figs. 16-18.

1962 *Nuculana ikebei*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 8-9, pl. 1, figs. 10-11.

1966 *Nuculana ikebei*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (46), 5-6.

1968 *Nuculana ikebei*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (56), 12.

1977 *Tenuileda ikebei*: Habe, Syst. Moll. Japan, **23**, pl. 4, figs. 13-14.

1999 *Tenuileda ikebei*: Higo et al., Cat. Bib. Mar. Shell-bear. Moll. Japan, 411-412.

Loc. Wabuka, Kushimoto, 600 m (Nagai).

Dist. Sagami Bay to Kii Peninsula.

**Subclass PTERIOMORPHIA Beurlen, 1944** Yokukei-ako

**Family Arcidae Lamarck, 1809** Funegai-ka

**Genus *Bathyarca* Kobelt, 1891** Watazoko-egai-zoku

1891 *Bathyarca* Kobelt, Syst. Conch.-Cab., N.F., 8(2), 213-214. Type (SD Verrill & Bush, 1896): *Arca pectunculoides* Scacchi, 1834.

*Bathyarca nipponica* Okutani, 1962 Sagami-watazoko-egai (Okutani) Pl. 4, fig. 3.

1962 *Bathyarca nipponica* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32): 13-14.

1964 *Bathyarca nipponica*: Okutani, Venus, 23(2), 83-84, fig. 5.

1977 *Bathyarca nipponica*: Habe, Syst. Moll. Japan, Biv. Scaph., 35.

Loc. Off Shionomisaki, 420 m (Ikebe).

Dist. Sagami Bay (type loc.) to Kii Peninsula.

**Genus *Mimarcaria* Iredale, 1939** Chigo-washinohagai-zoku

1939 *Mimarcaria* Iredale, Sci. Rep. Great Barrier Reef Exp., 5(6), 267. Type (OD): *Mimarcaria saviolum* Iredale, 1939.

*Mimarcaria* cf. *aizoi* (Sakurai, 1969) Ryugu-washinohagai (Sakurai) Pl. 4, figs. 4a-b

1969 *Barbatia* (*Ustularca*) *aizoi* Sakurai, Venus, 28(3), 131-133.

1995 *Barbatia* (*Ustularca*) *aizoi*: Hasegawa & Saito, Moll. Type Spec. Sakurai Coll., 7, pl. 6, fig. 4.

Loc. Off Kushimoto (Ikebe).

Dist. Shikoku to Kyushu (Goto Islands).

**Family Philobryidae Bernard, 1897** Shirasunagai-modoki-ka

**Genus *Cratis* Hedley, 1915**

1915 *Cratis* Hedley, Proc. Linn. Soc. N. S. Wales, 39, 698. Type (OD): *Cratis progressa* Hedley, 1915.

*Cratis ohashii* Hayami & Kase, 1993 Ohashi-shirasunagai-modoki (Hayami & Kase) Pl. 4, figs. 5a-b.

1993 *Cratis ohashii* Hayami & Kase, Bull. Univ. Mus. Univ. Tokyo, (35), 40-41, figs. 111-120.

2000 *Cratis ohashii*: Okutani, Mar. Moll. Japan, 860-861, pl. 428, fig. 3.

Loc. Off Shionomisaki (Ikebe).

Dist. Iejima and Shimojishima Islets, Okinawa (Hayami & Kase, 1993); off Shionomisaki.

**Family Mytilidae Rafinesque, 1825** Igai-ka

**Genus *Perna* Philippson, 1788** *Perna*-igai-zoku

1788 *Perna* Philippson, Diss. Nova Test. Gen., 20. Type (SD Soot-Ryen, 1955): *Perna*

*magellanica* Philippson, 1788 [= *Mya perna* Linnaeus, 1758].

***Perna viridis* (Linnaeus, 1758) Midori-igai (Shikama) Pl. 4, figs. 6a-b.**

1758 *Mytilus viridis* Linnaeus, Syst. Nat., ed. 10, 1, 706.

1791 *Mytilus smaragdinus* Gmelin, Syst. Nat., ed. 13, 3359.

1855 *Mytilus viridis*: Hanley, Ipsa Linnaei Conch., 145.

1952 *Mytilus viridis*: Dodge, Bull. Amer. Mus. Nat. Hist., **100**, 218-119.

1964 *Mytilus (Chloromya) smaragdinus* (sic): Shikama, Select. Shells World, **2**, 43, pl. 21, fig. 14.

1977 *Perna viridis*: Habe, Syst. Moll. Japan, Biv. Scaph., 51.

Loc. Wakayama (north bank, river mouth of Kinokawa; Saikazaki; Tanoura fishery port); Yura-cho and Hidaka-cho, Hidaka-gun; Hinomisaki (Ikebe); Tanabe Bay; Kushimoto (Imahara).

Dist. Indo-West Pacific (Taiwan and southwards).

**Genus *Adipicola* Dautzenberg, 1927**

1927 *Adipicola* Dautzenberg, Res. Camp. Sci. Prince de Monaco, **72**, 274. Type (M): *Modiolarca? pelagica* Forbes in Woodward, 1854.

***Adipicola longissima* (Thiele & Jaeckel, 1932) Suehiro-mayuigai (Horikoshi & Tsuchida) Pl. 4, figs. 7a-b.**

1932 *Myrina longissima* Thiele & Jaeckel, Deut. Tief-See Exp., 170, pl. 1, fig. 3.

1984 *Adipicola longissima*: Horikoshi & Tsuchida, Venus, **43**(1), 86-100, figs. 1-7.

1999 *Adipicola longissima*: Higo et al., Cat. Bib. Shell-bear. Mar. Moll. Japan, 420.

2000 *Adipicola longissima*: Kurozumi, Mar. Moll. Japan, 868-869, pl. 432, fig. 28.

Loc. Off Susami, 432-468 m (Koyama).

Dist. West of Sumatra (1° 48.9'N, 96° 53'E, 1143 m) (type locality); Philippines.

**Genus *Lithophaga* [Roeding, 1798] Shiginohashigai-zoku**

1798 *Lithophaga* [Roeding], Mus. Bolten., (2), 156. Type (M): *Lithophaga mytuloides* [Roeding, 1798][= *Mytilus lithophagus* Linnaeus, 1758].

**Subgenus *Leiosolenus* Carpenter, 1856 Ishimategai-azoku**

1856 *Leiosolenus* Carpenter, Cat. Mazatlan Shells, 130. Type (M): *Leiosolenus spatiosus* Carpenter, 1856.

***Lithophaga (Leiosolenus) obesa* (Philippi, 1847) Sekitori-ishimategai (Kuroda) Pl. 4, fig. 8.**

1847a *Modiola (Lithophagus) obesa* Philippi, Zeitsch. f. Malakozool., **4**, 118.

1847b *Modiola (Lithophagus) obesa* Philippi, Abb. u. Besch., 5/19, 6/20, pl. 2, fig. 2.

1938 *Lithophaga hawaia* Dall, Bartsch & Rehder, Bull. Burnice P. Bishop Mus., (153), 56-57, pl. 11, figs. 9-10.

1939 *Lithophaga obesa suspecta* Iredale, Sci. Rep. Great Barrier Reef Exp., **5**, 422-423, pl. 6, fig. 20.

1979 *Lithophaga obesa*: Wilson, Rec. Austral. Mus., **32**(13), 474-476, figs. 17(1a-b).

1984 *Lithophaga (Leiosolenus) obesa*: Kleemann, Jour. Moll. Stud., **50**, 218-223, figs. 25-28.

1997 *Lithophaga (Leiosolenus) obesa*: Wang, Fauna Sinica, Mollusca: Bivalvia: Order Mytiloida,

132-134, fig. 55.

Loc. Takatomi, Kushimoto (Tanaka).

Dist. Red Sea; Sri Lanka; Andaman Isls.; New Caledonia; Philippines; northern Western Australia; Queensland; New South Wales; Amami Is., Japan; Tahiti (Wilson, 1979; Kleeman, 1984).

**Subgenus *Diberus* Dall, 1898** Kongo-ishimategai-azoku

1898 *Diberus* Dall, 1898, Trans. Wagner Free Inst., 3(4), 799. Type (OD): *Modiola plumula* Hanley, 1843.

*Lithophaga* (*Diberus*) cf. *canalifera* Hanley, 1844 Kongo-ishimategai (Kuroda) Pl. 4, fig. 10.

1844 *Lithodomus canaliferus* Hanley, Proc. Zool. Soc. Lond., for 1844, 16-17.

1857 *Lithodomus canaliferus*: Reeve, Conch. Icon., 10, *Lithodomus* sp. 25, pl. 4, fig. 25.

1977 *Lithophaga* (*Diberus*) *canalifera*: Habe, Syst. Moll. Japan, Biv. Scaph., 62.

1997 *Lithophaga* (*Diberus*) *canalifera*: Wang, Fauna Sinica, Mollusca: Bivalvia: Order Mytiloida, 149-150, fig. 62.

Loc. Kamiura, Kushimoto (Tanaka).

Dist. Amami Island and southwards. Philippines (type locality).

*Lithophagus* (*Diberus*) *divaricalx* Iredale, 1939 Suehiro-ishimategai (Kuroda) Pl. 4, fig. 9.

1939 *Lithophaga divaricalx* Iredale, Sci. Rep. Great Barrier Reef Exp., 5, 420, pl. 6, fig. 23.

1979 *Lithophaga divaricalx*: Wilson, Rec. Austral. Mus., 32(13), 473-474, figs. 18-1a-b.

1984 *Lithophaga* (*Diberus*) *divaricalx*: Kleemann, Jour. Moll. Stud., 50, 193, fig. 1.

1997 *Lithophaga* (*Diberus*) *divaricalx*: Wang, Fauna Sinica, Mollusca: Bivalvia: Order Mytiloida, 150-151, fig. 63.

Loc. Sakai, Minabe (Minaga).

Dist. Philippines; Queensland and northern Western Australia (Wilson, 1979).

**Family Glycymerididae Newton, 1916** Tamakigai-ka

**Genus *Tucetona* Iredale, 1931** Uchiwagai-zoku

1931 *Tucetona* Iredale, Rec. Austral. Mus., 18, 202-203, 231. Type (OD) - *Pectunculus flabellatus* Tenison-Woods, 1878.

*Tucetona* cf. *sibogae* Matsukuma, 1982 Karekusa-uchiwagai (Matsukuma) Pl. 2, fig. 2.

1982 *Tucetona* sp.: Matsukuma, Venus, 41(3), 157, pl. 1, figs. 2, 4, 6.

Loc. Off Kushimoto (Tsuchida); off Shionomisaki, 100 m (Nagai).

Dist. Amami Is. to Kii Peninsula, Japan.

**Family Limidae Rafinesque, 1815** Minogai-ka

**Genus *Lima* Bruguière, 1797** Minogai-zoku

1797 *Lima* Bruguière, Ency. Meth., 1, pl. 206. Type (T): *Lima alba* Cuvier, 1797 [= *Ostrea lima* Linnaeus, 1758].



*Lima sagamiensis* Masahito, Kuroda & Habe in Kuroda et al., 1971 Sagami-marumino-gai (Masahito, Kuroda & Habe) Pl. 5, fig. 1.

1943 *Lima (Lima) tomlini* Prashad (part): Oyama, Conch. Asiatica, 1, 60-61, pl. 12, figs. 8a-b.

1971 *Lima sagamiensis* Masahito et al. in Kuroda et al., Sea Shells Sagami Bay, 582, 372, pl. 83, figs. 1-2.

2000 *Lima sagamiensis*: Hayami, Mar. Moll. Japan, 890-891, pl. 443, fig. 7.

Loc. Sakai, Minabe (Ikebe).

Dist. Sagami Bay (type locality) to Kii Peninsula.

*Lima ogasawarensis* Habe, 1993 Ogasawara-minogai (Habe) Pl. 2, fig. 3.

1993 *Lima ogasawarensis* Habe, Venus, 52(2): 117-119, figs. 1-3.

Loc. Suga fishing port, Kamiura, Kushimoto (Tanaka).

Dist. Chichijima Is., Ogasawara Isls. (type locality). Kii Peninsula.

### Genus *Limatula* Wood, 1839 Yuki-banegai-zoku

1839 *Limatula* Wood, Ann. Mag. Nat. Hist., n.s., 3(4), 235. Type (SD Gray, 1847): *Pecten subauriculatus* Montagu, 1808.

*Limatula choshiensis* Kuroda & Habe in Habe, 1961 Choshi-yuki-banegai (Kuroda)

1961 *Limatula choshiensis* Kuroda & Habe in Habe, Col. Ill. Shells Japan, 2 (ed. 1), 119, app. 37, pl. 54, fig. 2.

2000 *Limatula (Limatula) choshiensis*: Hayami, Mar. Moll. Japan, 894-895, pl. 445, fig. 33.

Loc. Off Wabuka, Kushimoto, 600 m (Nagai).

Dist. Off Choshi (type locality).

### Family Pectinidae Rafinesque, 1815 Itayagai-ka

#### Genus *Delectopecten* Stewart, 1930 Hari-nadeshikogai-zoku

1930 *Delectopecten* Stewart, Acad. Nat. Sci. Phila., Spec. Publ., (3), 37, 118. Type (OD): *Pecten (Pseudamussium) vancouverensis* Whiteaves, 1893.

*Delectopecten alcocki* (Smith, 1904) Ginrin-hari-nadeshikogai (Tsuchida & Kurozumi) Pl. 5, fig. 2.

1904 *Pecten alcocki* Smith, Ann. Mag. Nat. Hist., [7]14, 13.

1967 *Pecten alcocki*: Knudsen, Sci. Rep. John Murray Exp., 11(3), 282-284, text-fig. 19; pl. 2, figs. 3-4.

1981 *Delectopecten alcocki*: Poutiers, Mem. MUSORSTOM, (91), 331, pl. 1, fig. 1.

1994 *Delectopecten alcocki*: Tsuchida, Bull. Mar. Sci. Fish. Kochi Univ., (14), 77, pl. 2, figs. 5-6.

1995 *Delectopecten alcocki*: Tsuchida & Kurozumi, Jour. Nat. Hist. Mus. Inst. Chiba, 3(2), 185, figs. 9-9, 9-10.

1995 *Delectopecten alcocki*: Dijkstra, Mem. Mus. Nat. Hist. Nat., 167, 50-51, figs. 111-114, 147-150.

Loc. Off Shionomisaki, 600 m (Nagai).

Dist. South India (type locality); west Sumatra and east Africa (Thiele & Jaeckel, 1937); Philippines (Knudsen, 1967); off Kochi, Shikoku (Tsuchida, 1994).

*Delectopecten vancouverensis* (Whiteaves, 1893) O-hari-nadeshikogai (Habe & Ito) Pl. 5, fig. 3.

- 1893 *Pecten (Pseudamussium) vancouverensis* Whiteaves, Ottawa Naturalist, 7(9), 133.  
 1897 *Pecten randolphi* Dall, Nautilus, 11(8), 86.  
 1902 *Pecten randolphi*: Dall, Proc. U.S. Nat. Mus., 24(1264), 559, pl. 40, fig. 2.  
 1965 *Delectopecten randolphi*: Habe & Ito, Shell World Col., 1, 118-119, pl. 38, fig. 12.  
 2000 *Delectopecten vancouverensis*: Coan et al., Biv. Seashells W. N. Amer., 227-228, pl. 40.  
 Loc. Kushimoto (Ikebe).  
 Dist. Guaymas, Sonora, Mexico to Alaska, Kamchatka, and northern Japan (Coan et al., 2000).

### Genus *Juxtamussium* Iredale, 1939

- 1939 *Juxtamussium* Iredale, Sci. Rep. Great Barrier Reef Exp., 5(6), 347, 368. Type (OD): *Juxtamussium oblectatum* Iredale, 1939.

#### *Juxtamussium maldivense* (E. A. Smith, 1903) Maldives-nishikigai (Habe & Okutani)

- 1903 *Pecten maldivensis* E. A. Smith, Fauna Maldive Laccadive Arch., 2, 622, pl. 36, figs. 19-20.  
 1939 *Juxtamussium oblectatum* Iredale, Sci. Rep. Great Barrier Reef Exp., 5(6), 368, pl. 5, figs. 27-27a.  
 1972 *Juxtamussium maldivense*: Waller, Veliger, 14(3), 250-254, figs. 7, 19-20, 111-127.  
 1991 *Juxtamussium maldivense*: Rombouts, Guidebook Pecten Shells, 60, pl. 26, fig. 7.  
 1999 *Juxtamussium maldivensis* (sic): Higo et al., Cat. Bib. Shell-bear. Moll. Japan, 444.  
 Loc. Off Shionomisaki (Ito).  
 Dist. Maldives (type locality); Philippines; Great Barrier Reef (Iredale, 1939); Marshall Isls. (Waller, 1972).

### Family Propeamussidae Abbott, 1954 Watazoko-tsukihigai-ka

#### Genus *Propeamussium* de Gregorio, 1884 Watazoko-tsukihigai-zoku

- 1884 *Propeamussium* de Gregorio, Nat. Sicil., 3, 119. Type (OD): *Pecten (Propeamussium) ceciliae* de Gregorio, 1884.

#### *Propeamussium siratama* (Oyama, 1951) Shiratama-tsukihigai (Oyama) Pl. 5, fig. 4.

- 1951 *Ctenamussium (Micramussium) siratama* Oyama, Ill. Cat. Japan. Shells, (13), 80, pl. 13, figs. 5-7.  
 1964 *Propeamussium (Micramussium) siratama*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (46), 8, pl. 1, fig. 8.  
 1994 *Propeamussium siratama*: Tsuchida, Bull. Mar. Sci. Fish. Kochi Univ., (14), 77, pl. 2, fig. 3.  
 2000 *Propeamussium siratama*: Hayami, Mar. Moll. Japan, 912-913, pl. 454, fig. 6.  
 Loc. Off Wabuka, Kushimoto, 600 m (Ikebe); off Shionomisaki, 500 m (Nagai).  
 Dist. Off Manazuruzaki, Sagami Bay (type locality).

### Genus *Cyclopecten* Verrill, 1897 Uroko-hari-nadeshikogai-zoku

- 1897 *Cyclopecten* Verrill, Trans. Connect. Acad. Arts Sci., 10, 43, 70. Type (SD Sykes et al., 1898): *Pecten pustulosus* Verrill, 1893.

#### *Cyclopecten bistratus* (Dall, 1916) Koshi-hari-nadeshikogai (Hayami) Pl. 5, fig. 5.

- 1916 *Pseudamussium bistratum* Dall, Proc. U. S. Nat. Mus., 52(2183), 404, not *Pecten bistratus* Defrance, 1825.

- 1962 *Cyclopecten bistratus*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 18, pl. 5, figs. 1-1a.  
 1966 *Cyclopecten bistratus*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (46), 8, pl. 1, fig. 5.  
 1985 *Cyclopecten bistratus*: Tsuchida, Nanki Seibutsu, 27(2), 98, pl. 2, fig. 14.  
 1994 *Cyclopecten bistratus*: Tsuchida, Bull. Mar. Sci. Fish. Kochi Univ., (14), 77, pl. 2, fig. 4.  
 2000 *Cyclopecten bistratus*: Coan et al., Biv. Seash. W. N. America, 247-248, pl. 46, figs.  
 Loc. Off Tanabe, 975-1112 m (Tsuchida); off Shionomisaki, 600 m (Nagai);  
 Uragami, Nachi-Katsuura (Ikebe).  
 Dist. Oregon to Baja California (Coan et al., 2000); Sagami Bay (Okutani, 1962,  
 1966); Kii Peninsula (Tsuchida, 1985); Tosa Bay (Tsuchida, 1994).

*Cyclopecten nakaii* Okutani, 1962 Nakai-nishikigai (Shikama) Pl. 5, fig. 6.

- 1962 *Cyclopecten nakaii* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 18-19, pl. 2, fig. 6; pl. 5,  
 figs. 3-3a.  
 1968 *Cyclopecten nakaii*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (56), 16, pl. 1, fig. 5.  
 1988 *Cyclopecten nakaii*: Hayami, Trans. Proc. Palaeont. Soc. Japan, (150), figs. 2-7, 2-8.  
 1995 *Cyclopecten nakaii*: Tsuchida & Kurozumi, Jour. Nat. hist. Mus. Inst. Chiba, 3(2), 185, figs.  
 9-7, 9-8.  
 2000 *Cyclopecten nakaii*: Hayami, Mar. Moll. Japan, 913-914, pl. 455, figs. 13a-b.  
 2001 *Cyclopecten nakaii*: Higo et al., Cat. Bibl. Mar. Shell Bear. Moll. Japan, Types, 158, fig.  
 B522.  
 Loc. Off Wabuka, Kushimoto, 500 m (Nagai); off Kushimoto, 150 m (Nagai); off  
 Shionomisaki, 250 m (Nagai).  
 Dist. Sagami Bay (type locality).

*Cyclopecten nipponensis* Okutani, 1962 Nippon-watazoko-nadeshikogai (Hayami)  
 Pl. 5, fig. 7.

- 1962 *Cyclopecten nipponensis* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 17-18, pl. 5, figs.  
 2-2a.  
 1968 *Cyclopecten nipponensis*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (56), 15-16.  
 2000 *Cyclopecten nipponensis*: Hayami, Mar. Moll. Japan, 914-915, pl. 455, fig. 15.  
 Loc. Off Esuzaki, Susami, 1200 m (Nagai).  
 Dist. Miyakejima Is., Izu Archipelago (type locality).

**Genus *Chlamydella* Iredale, 1929**

- 1929 *Chlamydella* Iredale, Rec. Austral. Mus., 17, 164. Type(OD): *Cyclopecten favus* Hedley,  
 1902.

*Chlamydella incubata* Hayami & Kase, 1993 Komochi-hari-nadeshikogai (Hayami &  
 Kase) Pl. 5, fig. 8.

- 1993 *Chlamydella incubata* Hayami & Kase, Bull. Univ. Mus. Univ. Tokyo, (35), 62-65.  
 2000 *Chlamydella incubata*: Hayami, Mar. Moll. Japan, 914-915, pl. 455, fig. 17.  
 Loc. Shimokusui, Gobo (Ikebe).  
 Dist. Shimoji, Irabu, and Ie Islets, Okinawa; Amami-Oshima; Kii Peninsula; Izu  
 Peninsula.

**Genus *Parvamussium* Sacco, 1897 Oboro-tsukihigai-zoku**

- 1897 *Parvamussium* Sacco, Boll. Mus. Zool. Anat. Comp. Univ. Torino, 12, 102. Type (OD):  
*Pecten duodecimlamellatus* Bronn, 1831.

*Parvamussium* sp. Pl. 2, fig. 4.

Loc. Off Shionomisaki, 320 m (Nagai).

Dist. Southern New Caledonia.

### Family Spondylidae Gray, 1826 Umigikugai-ka

#### Genus *Spondylus* Linnaeus, 1758 Umigikugai-zoku

1758 *Spondylus* Linnaeus, Syst. Nat., ed. 10, 1, 690. Type (SD Schmidt, 1818): *Spondylus gaederopus* Linnaeus, 1758.

*Spondylus varius* Sowerby, 1829 Mizuiri-shojogai (Hirase)

1827 *Spondylus varius* Sowerby, Obs. Rem. Shells Stutchbury, 1.

1847 *Spondylus varians* Sowerby, Thes. Conch., 1, 426-427, pl. 86, fig. 21 (only).

1960 *Spondylus varius*: Oyama, Moll. Shells, (4), *Spondylus* (2), fig. 7.

2001 *Spondylus varius*: Lamprell, Mem. Mus. Natn. Hist. Nat., 185, 155-157, fig. 14G.

Loc. Kii (Teramachi Coll., Toba Aquarium, juvenile).

Dist. Amami Isls. and southwards (Habe, 1977). Solomon Isls., Philippines, New Caledonia, northwestern Australia, Great Barrier Reef (Lamprell, 2001); Polynesia (Sowerby, 1847).

### Family Ostreidae Rafinesque, 1815 Itabo-gaki-ka

#### Genus *Saccostrea* Dollfus & Dautzenberg, 1920 Ohaguro-gaki-zoku

1920 *Saccostrea* Dollfus & Dautzenberg, Mem. Soc. Geol. France, Paleont. Mem., 27, 471. Type (OD): *Ostrea sacculus* Dujardin, 1835 [= *Ostrea cucullata* Born, 1778].

*Saccostrea parasitica* (Gmelin, 1791) Kuro-heri-gaki (Habe & Kosuge)

1791 *Ostrea parasitica* Gmelin, Syst. Nat., ed. 13, 3336.

1819 *Ostrea mytiloides* Lamarck, Hist. Nat. Anim. s. Vert., 6(1), 207.

1993 *Striostrea parasitica*: Bernard et al., Cat. Liv. Mar. Biv. Moll. China, 46.

1999 *Striostrea parasitica* (Gmelin, 1791): Higo et al., Cat. Bib. Shell-bear. Moll. Japan, 440.

Loc. Tsubaki, Shirahama (Habu).

Dist. Australia; Indonesia; Philippines; South China Sea (Bernard et al., 1993).

Remarks. The place where specimens collected by Habu are kept is unknown.

*Saccostrea cucullata* (Born, 1778) Ohaguro-gaki-modoki (Nishimura, Kurozumi & Kimura) Pl. 6, fig. 1.

1778 *Ostrea cucullata* Born, Ind. rerum nature. mus. Caesarei Vindobonensis, 100.

1936 *Ostrea glomerata*: Hiro, Venus, 6(1), 36, 41, 42.

1964 *Ostrea glomerata*: Johnson, Bull. U. S. Nat. Mus., 239, 84.

1981 *Saccostrea glomerata*: Torigoe, Jour. Sci. Hiroshima Univ., [B], div. 1(Zool.), 29(2), 310-311, 332, pl. 3, fig. 5, pl. 21, 1-6.

1998 *Saccostrea cucullata*: Nishimura et al., Chiribotan, 28(4), 85-88, pl. 1, figs. 1-4.

Loc. Nishihiro, Hirokawa, Arita County (Minaga); Tanabe Bay (Minaga); Shirahama (Kubota); river mouth of Tondagawa, Shirahama (Ogaki).

Dist. Okinawa Is. and southwards (Torigoe, 1981); Palau (Hiro, 1936); New Zealand (Gould, 1850, type locality).

**Subclass HETERODONTA Neumayr, 1884 Ishi-ako****Family Thyasiridae Dall, 1901 Hanashigai-ka****Genus *Axinulus* Verrill & Bush, 1898 Yogore-hanashigai-zoku**

1898 *Axinulus* Verrill & Bush, Proc. U. S. Nat. Mus., 20, 790. Type (OD): *Axinulus brevis* Verrill & Bush, 1898.

*Axinulus simplex* (Verrill & Bush, 1898) Yogore-hanashigai (Okutani) Pl. 2, fig. 5.

1898 *Cryptodon* (*Axinulus*) *simplex* Verrill & Bush, Proc. U. S. Nat. Mus., 20(1139), 791, pl. 92, figs. 3-4.

1962 *Axinulus simplex*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 25, pl. 4, fig. 11.

Loc. Off Shionomisaki, 500 m (Nagai).

Dist. North Atlantic (type locality). Sagami Bay (Okutani, 1962).

**Family Ungulinidae H. & A. Adams, 1857 Futabashiragai-ka****Genus *Cycladicama* Valenciennes in Rousseau, 1854 Shiogamagai-zoku**

1854 *Cycladicama* Valenciennes in Rousseau, Voy. Pole Sud., 5, 116. Type (OD): *Cycladicama luciniformis* Valenciennes in Rousseau, 1854 [= *Cyrenoida oblonga* Sowerby in Deshayes, 1855].

*Cycladicama oblonga* (Sowerby in Deshayes, 1855) Nekoze-shiogamagai (Kuroda) Pl. 6, fig. 2.

1855 *Cyrenella oblonga* Sowerby in Deshayes, PZSL, for 1854, 341.

1856 *Cyrenoida oblonga* Hanley, Cat. Rec. Biv. Shells, 353, suppl. pl. 15, fig. 6.

1961 *Cycladicama oblonga*: Habe, Col. Ill. Shells Japan, 2 (ed. 1), 124, pl. 56, fig. 9.

1988 *Cycladicama oblonga*: Tsuchida, Chiribotan, 19(3), 67-68, fig. 3.

2001 *Cycladicama oblonga*: Robba et al., Boll. Malac., 38(5-8), 79, pl. 7, fig. 9.

2001 *Cycladicama luciniformes* (sic) Valenciennes in Rousseau, 1854: Swennen et al., Moll. South. Gulf Thailand, 78, fig. 088.

Loc. Off Shionomisaki, 160 m (Nagai).

Dist. Philippines (type locality). Gulf of Thailand (Robba et al., 2001; Swennen et al., 2001); Ujung Pandang, Indonesia (Tsuchida, 1988); Taiwan.

**Family Montacutidae Clark, 1855 Bunbuku-yadorigai-ka****Genus *Fronsella* Laseron, 1956 Hanabiragai-zoku**

1956 *Fronsella* Laseron, Rec. Austral. Mus., 24(2), 9. Type (OD): *Fronsella adipata* Laseron, 1956.

*Fronsella philippinensis* Habe & Kanazawa, 1981 Philippines-hanabiragai (Habe & Kanazawa)

1981 *Fronsella philippinensis* Habe & Kanazawa, Venus, 40(3), 123-125, figs. 2-7.

1981 *Fronsella sipunculicola* Habe & Kanazawa, Venus, 40(3), figs. 2-7 (objective junior synonym of *Fronsella philippinensis*).

Loc. Sakai, Minabe (Habu). Off Shionomisaki, 160 m (Nagai).

Dist. Mactan Is., Philippines (type locality).

**Family Carditidae Fleming, 1820** Tomayagai-ka

**Genus *Megacardita* Sacco in Bellardi & Sacco, 1889** Fumigai-zoku

1889 *Megacardita* Sacco in Bellardi & Sacco, Moll. Terr. Terz. Piemonte e Liguria, **27**, 9. Type (OD): *Venericardia jouanneti* Basterot, 1825.

*Megacardita coreensis* (Deshayes, 1854) Hataune-fumigai (Kuroda) Pl. 6, fig. 3.

1854 *Cardita coreensis* Deshayes, Proc. Zool. Soc. Lond., for **1852**, 101.

1961 *Venericardia (Megacardita) coreensis*: Habe, Col. Ill. Shells Japan, **2** (ed. 1), 122, pl. 55, fig. 10.

1969 *Venericardia (Megacardita) (err. pro -cardita) coreensis*: Takahashi & Okamoto, Cat. Fukuoka, 73, pl. 19, fig. 11.

1975 *Megacardita coreensis*: Okutani & Habe, Gakken, **2**, 111, 247, fig.

2000 *Megacardita coreensis*: Matsukuma, Mar. Moll. Japan, 942-943, pl. 469, fig. 6.

Loc. Off Shionomisaki, 160 m (Nagai).

Dist. Korea (type locality). Genkainada Sea (Takahashi & Okamoto, 1969).

**Family Cardiidae Lamarck, 1809** Wadachi-zarugai-ka

**Genus *Regozara* Iredale, 1936** Ichigo-zarugai-zoku

1936 *Regozara* Iredale, Rec. Austral. Mus., **19**(5), 275. Type (OD): *Regozara olivifer* Iredale, 1936 [= *Cardium reeveanum* Dunker, 1852].

*Regozara flavus* (Linnaeus, 1758) Ryukyu-zarugai (Hirase)

1758 *Cardium flavum* Linnaeus, Syst. Nat., ed. 10, 680.

1992 *Acrosterigma flava*: Lamprell & Whitehead, Biv. Austral., **1**, pl. 29, fig. 193.

1997 *Vasticardium flavum*: Vidal, Zoosystema, **19**(2-3), 239-241, figs. 1, 4a.

Loc. Shirahama (Kubota).

Dist. Eastern Indonesia to Western Carolines.

**Genus *Vasticardium* Iredale, 1927** Zarugai-zoku

1927 *Vasticardium* Iredale, Rec. Austral. Mus., **16**, 75. Type (OD): *Vasticardium nebulosum* Iredale, 1927.

*Vasticardium pectiniforme* (Born, 1780) Asa-zarugai (Kuroda) Pl. 6, fig. 4.

1780 *Cardium pectiniforme* Born, Testacea, 49, pl. 3, fig. 10.

1954 *Vasticardium compunctum* Kuroda (MS): Kira, Col. Ill. Shells Japan, **1**, 111, pl. 55, fig. 8.

1997 *Vasticardium pectiniforme*: Vidal, Zoosystema, **19**(2-3), 244-248, figs. 2C, F-G, 3A, 4B-F.

2000 *Regozara flavum*: Matsukuma, Mar. Moll. Japan, 948-949, pl. 472, fig. 7.

Loc. Kamiura, Kushimoto (Tanaka).

Dist. Tropical Indian Ocean, Southeast Asia, eastern Australia, southwestern Japan, Fiji, and Western Carolines (Vidal, 1997).

**Family Tridacnidae Lamarck, 1819** Shakogai-ka**Genus *Tridacna* Bruguière, 1797** O-jakogai-zoku

- 1797 *Tridacna* Bruguière, Tabl. Ency. Meth. Vers Test., pl. 235. Type (subsequent monotypy Lamarck, 1799): *Chama gigas* Linnaeus, 1758.

**Subgenus *Flodacna* Iredale, 1937** Hire-jakogai-azoku

- 1937 *Flodacna* Iredale, Austral. Zool., 8(4), 238. Type (OD): *Tridacna squamosa* Lamarck, 1819.

*Tridacna* (*Flodacna*) *squamosa* Lamarck, 1819 Hire-jakogai (Mokuhachifu) Pl. 6, fig. 5.

- 1819 *Tridacna squamosa* Lamarck, Hist. Nat. Anim. s. Vert., 6(1), 106.

- 1965 *Tridacna* (*Chametrachea*) *squamosa*: Rosewater, Indo-Pacific Moll., 1(6), 380-383, pls. 263, 267, 285.

Loc. Off Sumisaki, Kushimoto, 8 m (Manabe); stranded at Ogokuda, Shionomisaki.

Dist. East Africa to eastern Melanesia. Ambon, Moluccas (type locality).

**Family Mesodesmatidae Gray, 1840** Chidori-masuogai-ka**Genus *Monterosatus* Beu, 1971** Kohazegai-zoku

- 1971 *Monterosatus* Beu, Jour. Malac. Soc. Austral., 2(1), 125, new name for *Nesis* Locard, 1899. Type (M): *Nesis prima* Locard, 1899.

*Monterosatus amamiensis* Sakurai & Habe, 1973 Kohazegai (Sakurai & Habe)

- 1973 *Monterosatus amamiensis* Sakurai & Habe, Venus, 32(1): 4-6, figs. 1-2.

- 1995 *Monterosatus amamiensis*: Hasegawa & Saito, 1995, Illustr. Checklist Sakurai Coll., 7, 28, pl. 7, fig. 5 (holotype).

- 2000 *Monterosatus amamiensis*: Matsukuma, Mar. Moll. Japan, 968-969, pl. 482, fig. 4 (holotype).

Loc. Kamiura, Kushimoto (Kawabe).

Dist. Amami-Oshima Is. (type locality).

**Family Tellinidae Blainville, 1814** Nikkogai-ka**Genus *Loxoglypta* Dall, Bartsch & Rehder, 1938** Shibori-zakuragai-zoku

- 1938 *Loxoglypta* Dall, Bartsch & Rehder, Bull. Bernice P. Bishop Mus., (153), 192. Type (OD): *Tellina obliquilineata* Conrad, 1837.

*Loxoglypta transculpta* (Sowerby, 1915) Hasume-zakuragai (Kuroda) Pl. 6, fig. 6.

- 1915 *Macoma transculpta* Sowerby, Ann. Mag. Nat. Hist., [8]16, 169, pl. 10, fig. 11.

- 1977 *Jactellina* (*Loxoglypta*) *transculpta* (sic): Habe, Syst. Moll. Japan, Biv. Scaph., 203.

- 1993 *Jactellina transculpta*: Bernard et al., Cat. Liv. Mar. Biv. Moll. China, 93.

- 1999 *Loxoglypta transculpta*(sic): Higo et al., Cat. Bib. Mar. Shell-bear. Moll. Japan, 487.

Loc. Tsuinoura, mouth of Tonda river (Yoshida); Kamiura, Kushimoto (Minaga).

Dist. East China Sea; Taiwan (Bernard et al., 1993). Hirado, Japan (type locality).

**Genus *Scutarcopagia* Pilsbry, 1918** Same-zaragai-zoku

- 1918 *Scutarcopagia* Pilsbry, Proc. Acad. Nat. Sci. Phila., **69**, 332. Type (OD): *Tellina scobinata* Linnaeus, 1758.

*Scutarcopagia scobinata* (Linnaeus, 1758) Same-zaragai (Iwakawa) Pl. 6, fig. 7.

- 1758 *Tellina scobinata* Linnaeus, Syst. nat., ed. 10, 676.  
 1918 *Tellia* (*Arcopagia*) *elizabethae* Pilsbry, Proc. Acad. Nat. Sci. Phila., **69**, 331-332, pl. 22, fig. 8.  
 1938 *Scutarcopagia scobinata elizabethae*: Dall, Bartsch & Rehder, 1938, Bull. Burnice P. Bishop Mus., (153), 183-184, pl. 47, figs. 1-4.  
 1965 *Scutarcopagia scobinata*: Scarlato, Stud. Mar. Sinica, (8), 68-69, pl. 6, fig. 4.  
 1977 *Scutarcopagia scobinata*: Habe, Syst. Moll. Japan, Biv. Scaph., 200.  
 1992 *Tellina* (*Scutarcopagia*) *scobinata*: Lamprell & Whitehead, 1992, Biv. Austral., **1**, pl. 47, fig. 347.  
 1995 *Scutarcopagia scobinata*: Bosch et al., Seashells E. Arabia, 256, fig. 1144.  
 Loc. Hatakeshima, Shirahama (Okoba); Ogokuda, Shionomisaki (Maeiwa, Minaga).  
 Dist. Arabian Sea, Southeast Asia, New Caledonia, Australia, southern Japan, Hawaii.

**Genus *Elliptotellina* Cossmann, 1866** Chijimi-himezaragai-zoku

- 1866 *Elliptotellina* Cossmann, Ann. Soc. Malac. Belg., **21**, 71. Type (OD): *Donax tellinella* Lamarck, 1805.

*Elliptotellina kikaizimana* (Nomura & Zinbo, 1934) Kikai-himezaragai (Tsuchida & Ikebe) Pl. 7, fig. 1.

- 1934 *Tellina kikaizimana* Nomura & Zinbo, [2]16, 157, pl. 5, figs. 19a-b.  
 1989 *Elliptotellina kikaizimana*: Kaneko, Venus, **48**(1), 54.  
 1991 *Elliptotellina kikaizimana*: Tsuchida & Ikebe, Nanki Seibutsu, **33**(2), 71, pl. 3, figs. 4-5.  
 Loc. Off Shionomisaki, 70 m (Kaneko, Ikebe).  
 Dist. Andaman Sea, off Phuket (PMBC); New Caledonia; Yakushima Is., 77-82 m (Tsuchida), Kikaijima Islet, Kagoshima (Pleistocene, type locality); Zenisu submarine bank, Izu Archipelago (Tsuchida & Ikebe, 1991); Chichijima Island, Bonin Isls., 120 m (Nagai).

*Elliptotellina flabellum* (Viader, 1951) Arabori-himezaragai (Matsukuma, new vernacular name) Pl. 7, fig. 3.

- 1951 *Psammobia flabellum* Viader, Mauritius Inst. Bull., **3**(2), 143, pl. 5, fig. 3.  
 1958 *Asaphis nana* Powell, Rec. Auckland Inst. Mus., **5**, 75, pl. 9, fig. 5.  
 1991 *Elliptotellina* sp.: Tsuchida & Ikebe, Nanki Seibutsu, **33**(2), 71, pl. 3, figs. 6-7.  
 1993 *Agnohyax nana*: Willan, Rec. Australian Mus., Suppl., (18), 90-91, fig. 372.  
 Loc. Off Shionomisaki (Ikebe).  
 Dist. Andaman Sea, off Phuket (PMBC); Kermadec Isls. (Powell, 1958; Willan, 1993); Kumejima (Nagai) Is., 150 m (Nagai) and Tokashiki (Tsuchida & Ikebe, 1991), Okinawa; Zenisu submarine bank, Izu Archipelago (Tsuchida & Ikebe, 1991); Ogasawara Isls., 120 m (Nagai).

*Elliptotellina* sp. Kinu-himezaragai (Matsukuma, new vernacular name) Pl. 7, fig. 3.



Loc. Off Kushimoto (Ikebe).

Dist. Yonagunijima Is., Okinawa (Nagai); Yakushima Is., Kagoshima, 77-82 m (Tsuchida).

**Genus *Jactellina* Iredale, 1929** Goshiki-zakuragai-zoku

1929 *Jactellina* Iredale, Mem. Queensland Mus., 9, 266. Type (OD): *Tellina obliquaria* Deshayes, 1855.

*Jactellina obliquistriata* (Sowerby, 1868) Goshiki-zakuragai (Gunpin) Pl. 6, fig. 8.

1868 *Tellina obliquistriata* Sowerby, Conch. Icon., 17, *Tellina* pl. 44, sp. 256, figs. 256a-c.

1965 *Exotica obliquistriata*: Scarlato, Stud. Mar. Sinica, (8), 88, pl. 12, fig. 2.

1993 *Jactellina obliquistriata*: Bernard et al., Cat. Liv. Mar. Biv. Moll. China, 92.

Loc. Ogokuda, Shionomisaki, Kushimoto (Minaga).

Dist. South China Sea; Taiwan (Bernard et al., 1993).

**Family Semelidae Stoliczka, 1870** Asajigai-ka

**Genus *Abra* Lamarck, 1818** Ryugu-zakuragai-zoku

1818 *Abra* Lamarck, Hist. Nat. Anim. s. Vert., 5, 492. Type (SD Herrmannsen, 1846): *Macetra tenuis* Montagu, 1818.

*Abra philippinensis* (E. A. Smith, 1885) Tsuya-ryugu-zakuragai (Tsuchida)

1885 *Semele (Abra) philippinensis* E. A. Smith, Rep. Challenger, Zool., 13, 86, pl. 5, fig. 3.

1985 *Abra philippinensis*: Tsuchida, Nanki Seibutsu, 27(2), 98-99, pl. 2, fig. 15.

Loc. Off Tanabe (Tsuchida).

Dist. Panay Is., Philippines (type locality).

**Family Psammobiidae Fleming, 1828** Shio-sazanamigai-ka

**Genus *Kermadysmea* Powell, 1958** Sudare-masuogai-zoku

1958 *Kermadysmea* Powell, Rec. Auckland Inst. Mus., 5, 73. Type (OD): *Kermadysmea galathea* Powell, 1958.

*Kermadysmea galathea* Powell, 1958 Sudare-yoshigai (Okutani) Pl. 7, fig. 4.

1958 *Kermadysmea galathea* Powell, Rec. Auckland Inst. Mus., 5, 74, pl. 10, fig. 4.

1983 *Kermadysmea galathea*: Okutani, World Seashells Rarity Beauty, 12, pl. 47, fig. 7.

1985 *Kermadysmea galathea*: Lan, Galaxy of Seashells, 167, fig.

1989 *Kermadysmea galathea*: Matsukuma, Mem. Nat. Sci. Mus., (22), 108-110, figs. 4-5, pl. 3, figs. 1-11.

1993 *Gari (Kermadysmea) galathea*: Willan, Rec. Austral. Mus., Suppl., (18), 59-60, figs. 194-196, 398.

Loc. Off Shionomisaki, 80 m (Nagai).

Dist. Reunion; Kermadec Isls. (Powell, 1958, type locality); Taiwan (Lan, 1985); Okinawa (Matsukuma, 1989).

**Genus *Gobraeus* Brown, 1844** Ezo-masuogai-zoku

- 1844 *Gobraeus* Brown, Ill. Conch. Great Brit. Ireland, ed. 2, 102. Type (M): *Solen vespertinus* Gmelin, 1791 [= *Tellina depressa* Pennant, 1777].

*Gobraeus oriens* (Deshayes, 1855) Hanayaka-masuogai (Habe & Kosuge) Pl. 2, fig. 6.

- 1855 *Psammobia oriens* Deshayes, Proc. Zool. Soc. Lond., for 1854, 318.  
 1880 *Gari oriens*: Bertin, Nouv. Arch. Mus. D'Hist. Nat., [2], 3, 124.  
 1966 *Dysmea occidens* (Gmelin): Habe & Kosuge, Shells World Col., 2, 172, pl. 67, fig. 2 (non Gmelin, 1791).  
 1978 *Gari (Dysmea) tongana* (Quoy & Gaimard): Cernohorsky, Trop. Pac. Mar. Shells, 186, pl. 68, fig. 2 (non Quoy & Gaimard, 1835).  
 1986 *Gari (Dysmea) occidens*: Springsteen & Leobrera, Shells Philippines, 305, pl. 86, fig. 26 (non Gmelin, 1791).  
 1989 *Dysmea oriens*: Matsukuma, Mem. Nat. Sci. Mus. Tokyo, (22), 106-107, pl. 1, figs. 4-7.  
 1993 *Gari (Gobraeus) castrensis oriens*: Willan, Rec. Austral. Mus., Suppl., (18), 52-55, figs. 214-222, 395.  
 Loc. Takatomi, Kushimoto (Tanaka).  
 Dist. Madagascar; Loyalty Isls., New Caledonia; Queensland; Philippines; southern China; Japan; Tonga (Willan, 1993).

**Genus *Soletellina* Blainville, 1824** Murasakigai-zoku

- 1824 *Soletellina* Blainville, Dict. Sic. Nat., 32, 350. Type (M): *Soletellina radiata* Blainville, 1824 [= *Solen diphos* Linnaeus, 1771].

*Soletellina petalina* (Deshayes, 1855) Ashibe-masuo-gai (Noda) Pl. 7, fig. 5.

- 1855 *Psammobia petalina* Deshayes, Proc. Zool. Soc. London, for 1854, 320-321.  
 1857 *Psammobia petalina*: Reeve, Conch. Icon., 7, *Psammobia* sp. 53, pl. 7, fig. 53.  
 1880 *Gari petalina*: Bertin, Nov. Arch. Mus. Hist. Nat. Paris, [2], 3, 127.  
 1992 *Soletellina petalina*: Lamprell & Whitehead, Biv. Australia, pl. 55, fig. 414.  
 1993 *Soletellina (Soletellina) petalina*: Willan, Rec. Australian Mus., Suppl., (18), 82-83, figs. 331-335, 411.  
 2001 *Soletellina petalina*: Noda, Chiribotan, 31(4), 91-97, pl. 1, figs. 1-6, pl. 2, fig. 1.  
 2002 *Soletellina (Soletellina) petalina*: Fukuda & Willan, Yuriyagai, 8(2): 57-61, figs. 1-7.  
 Loc. Mouth of Kinokawa river, Wakagawa river, Nagusahama, Nunobiki, Wakayama (Noda); Nishihiro, Hirokawa, Arita County (Noda); Takinai, Tanabe (Tanaka); Hatakesima, Shirahama (Manabe).  
 Dist. Philippines; northern Australia; Chinese Sea; Fiji.

**Family Solenidae Lamarck, 1809** Mategai-ka**Genus *Solen* Linnaeus, 1758** Mategai-zoku

- 1758 *Solen* Linnaeus, Syst. Nat., ed. 10, 672. Type (SD Schumacher, 1817): *Solen vagina* Linnaeus, 1758.

*Solen kikuchii* Cosel, 2002 Chigo-mategai (Habe) Pl. 7, fig. 6.

- 1999 *Solen dunkerianus*: Higo, Callomon & Goto 1999, Cat. Mar. Shell-bear. Moll. Japan, 481.

2000 *Solen dunkerianus*: Matsukuma, Mar. Moll. Japan, 990-991, pl. 493, fig. 9.

2002 *Solen kikuchii* Cosel, Collectanea Malacologica, 310-315, text-figs 12-13, col.-pl. 34, figs 1-4

Loc. Nagusahama, Nunobiki, Wakayama (Noda).

Dist. Ariake Sea (type locality).

### **Family Trapezidae Lamy, 1920    Funagatagai-ka**

#### **Genus *Glossocardia* Stoliczka, 1870    Tsukiyomigai-zoku**

1870 *Glossocardia* Stoliczka, Mem. Geol. Surv. India, [6]3, 189. Type (OD): *Cypricardia obesa* Reeve, 1843.

*Glossocardia stoliczkana* Prashad, 1932    Mikado-tsukiyomigai (Tsuchida & Tanaka)  
Pl. 7, fig. 7.

1932 *Glossocardia stoliczkana* Prashad, Monogr. Siboga Exp., 53c, 148-149, pl. 8, figs. 15-18.

1995 *Glossocardia stoliczkana*: Matsukuma & Habe, Mem. Mus. Nat. d'Hist. Nat., 167, 92-94, figs. 14(?), 17, 20, 39(?).

Loc. Off Shionomisaki, 100 m (Nagai).

Dist. Mindoro, Panay, Cebu (?), and Sulu Archipelago (type locality), Philippines;  
Loyalty Islands, New Caledonia (Matsukuma & Habe, 1995).

### **Family Vesicomidae Dall, 1908    Otohime-hamaguri-ka**

#### **Genus *Calyptogena* Dall, 1891    Shirourigai-zoku**

1891 *Calyptogena* Dall, Proc. U. S. Nat. Mus., 14, 189. Type (M): *Calyptogena pacifica* Dall, 1891.

#### **Subgenus *Archivesica* Dall, 1908    Akebigai-azoku**

1908 *Archivesica* Dall, Bull. Mus. Comp. Zool. Harvard, 43, 418. Type (OD): *Callocardia gigas* Dall, 1890.

*Calyptogena* (*Archivesica*) *kawamurai* (Kuroda, 1943)    Akebigai (Kuroda)

1943 *Akebiconcha kawamurai* Kuroda, Japan. Jour. Malac., 13(1-4): 14-18, text-figs. 1-3.

1983 *Akebiconcha kawamurai*: Okutani, World Seash. Rar. Beauty, 12, pl. 46, fig. 9 (holotype).

1991 *Akebiconcha kawamurai*: Matsukuma et al., World Seash. Rar. Beauty, rev. enl., 187, pl. 150, fig. 3 (holotype).

2000 *Calyptogena* (*Archivesica*) *kawamurai*: Okutani, Mar. Moll. Japan, 998-999, pl. 497, fig. 15 (holotype).

2001 *Akebiconcha kawamurai*: Higo et al., Cat. Bib. Mar. Shell-bear. Moll. Japan, Types, 175, B1114 (holotype).

Loc. Off Tanabe (Tsuchida); off Kushimoto (Tsuchida).

Dist. Off Odawara, Sagami Bay (type locality).

### **Family Veneridae Rafinesque, 1815    Marusudaregai-ka**

#### **Genus *Veremolpa* Iredale, 1930    Hime-kanokoasari-zoku**

- 1930 *Veremolpa* Iredale, Rec. Austral. Mus., **17**, 397. Type (OD): *Veremolpa ethica* Iredale, 1930 [= *Venus scabra* Hanley, 1845].

***Veremolpa scabra* (Hanley, 1845) Taiwan-hime-kanokoasari (Kuroda) Pl. 7, fig. 8.**

- 1845 *Venus scabra* Hanley, Proc. Zool. Soc. Lond., for **1844**, 161.  
 1853 *Venus scabra* Hanley, Thes. Conch., **2**(14), 718, pl. 157, figs. 101-102.  
 1856 *Venus scabra* Hanley, Suppl. Descr. Cat., 361, pl. 16, fig. 24.  
 1977 *Timoclea scabra*: Fischer-Piette & Vukadinovic, Mem. Mus. Nat. d'Hist. Nat., nouv. ser., [A], Zool., **106**, 69-70, pl. 8, figs. 86-96, pl. 9, fig. 97.  
 Loc. Off Kushimoto, 80 m (Nagai).  
 Dist. Australia (Hanley, 1853).

**Genus *Katelsia* Roemer, 1857 Sudare-hamaguri-zoku**

- 1857 *Katelsia* Roemer, Krit. Unters. Venus, **17**. Type (SD Kobelt, 1881): *Venus scalarina* Lamarck, 1818.

***Katelsia japonica* (Gmelin, 1791) Sudare-hamaguri (Mokuhachifu) Pl. 7, fig. 9.**

- 1791 *Venus japonica* Gmelin, Syst. Nat., ed. 13, **1**(6), 3279.  
 1791 *Venus striata* Gmelin, Syst. Nat., ed. 13, **1**(6): 3279.  
 1798 *Venus porcata* Roeding, Mus. Bolten., (2): 182.  
 1818 *Venus tristis* Lamarck, Hist. Nat. Anim. s. Vert., **5**: 614.  
 1818 *Venus vulvina* Lamarck, Hist. Nat. Anim. s. Vert., **5**: 614.  
 1818 *Venus flammea* Lamarck, Hist. Nat. Anim. s. Vert., **5**: 616, non *Venus flammea* Gmelin, 1791.  
 1971 *Marcia japonica*: Fischer-Piette & Métivier, Mem. Mus. Nat. Hist. Nat., new ser., ser. A, Zool., **71**: 59-61, pl. 12, figs. 10-12, 13-15, 16, pl. 13, 1-8.  
 1977 *Katelsia japonica*: Habe, Syst. Moll. Japan, Biv. Scaph., 267.  
 2000 *Katelsia japonica*: Matsukuma, Mar. Moll. Japan, 1014-1015, pl. 505, fig. 59.  
 Loc. Rivermouth of Hikigawa river (Maeiwa); Yukashigata, Yukawa, Nachi-Katsuura (Yoshida).  
 Dist. Kyushu and southwards (Habe, 1977).

**Genus *Sunettina* Pfeiffer, 1869 Beni-wasuregai-zoku**

- 1869 *Sunettina* Pfeiffer, Syst. Conch.-Cab., **11**(1), 86. Type (M): *Cytherea solanderii* Gray, 1825.

***Sunettina langfordi* Habe, 1953 Okinawa-wasuregai (Habe), Langford-wasuregai (Kuroda) Pl. 7, fig. 10.**

- 1953 *Sunettina langfordi* Habe, Venus, **17**(3), 132, 139-140.  
 1961 *Sunetta (Cyclosunetta) langfordi*: Habe, Col. Ill. Shells Japan, **2**, 130, pl. 58, fig. 15.  
 1977 *Sunettina langfordi*: Habe, Syst. Moll. Japan, Biv. Scaph., 272.  
 Loc. Kamiharaido, Gobo (Minaga).  
 Dist. Itoman, Okinawa (type locality); Amami-Oshima; Hachijojima.

**Family Petricolidae Deshayes, 1839 Iwahorigai-ka**

**Genus *Petricola* Lamarck, 1801 Iwahorigai-zoku**

- 1801 *Petricola* Lamarck, Syst. Anim. s. Vert., 121. Type (SD Schmidt, 1818): *Petricola costata*

Lamarck, 1818 [= *Venus lapicida* Gmelin, 1791].

*Petricola* sp. Usukara-shiotsugai (Habe) Pl. 7, fig. 11.

2002 *Petricola* sp. cf. *lithophaga*: Kurozumi & Okamoto, *Venus*, **61**(1-2): 111.

Loc. Nagusahama, Wakayama (Noda).

Dist. Inland Sea of Japan; Osaka Bay; Tokyo Bay (Kurozumi & Okamoto, 2002).

### **Family Glauconomidae Gray, 1853 Hanagumorigai-ka**

#### **Genus Glauconome Gray, 1828 Hanagumorigai-zoku**

1828 *Glauconome* Gray, *Spicil. Zool.*, 6. Type (M): *Glauconome chinensis* Gray, 1828.

*Glauconome chinensis* Gray, 1828 Hanagumorigai (Hirase) Pl. 7, fig. 12.

1828 *Glauconome chinensis* Gray, *Spicil. Zool.*, (1-2), 6.

1954 *Glauconome chinensis*: Kira, *Col. Ill. Shells Japan*, **1**, 116, pl. 58, fig. 16.

1977 *Glauconome chinensis*: Habe, *Syst. Moll. Japan*, 277, pl. 59, figs. 16-17.

2000 *Glauconome chinensis*: Matsukuma, *Mar. Moll. Japan*, 1000-1001, pl. 498, fig. 1.

Loc. Nishihiro beach, Hirokawa, Arita-gun (Minaga).

Dist. Ariake Sea; Inland Sea of Japan; Tokyo Bay. Korea; China.

### **Subclass ANOMALODESMATA Dall, 1889 Ijintai-ako**

#### **Family Myochamidae Bronn, 1862 Mitsukado-katabiragai-ka**

#### **Genus Myadropsis Habe, 1960 Yamazaki-suemonogai-zoku**

1960 *Myadropsis* Habe, *Publ. Seto Mar. Biol. Lab.*, **8**(2), 293. Type (OD): *Thracia transmontana* Yokoyama, 1922.

*Myadropsis brevispinosus* Habe, 1962 Toge-yamazaki-suemonogai (Habe) Pl. 8, fig. 1.

1962 *Myadropsis brevispinosus* Habe, *Col. Ill. Shells Japan*, **2** (ed. 2), 142-143, app. 46, pl. 64, fig. 8.

1977 *Myadropsis brevispinosa*: Habe, *Syst. Moll. Japan*, 309, pl. 65, figs. 3-4.

2000 *Myadropsis brevispinosus*: Okutani, *Mar. Moll. Japan*, 1034-1035, pl. 515, fig. 7.

Loc. Off Shirahama, 30 m (Nagai).

Dist. Boso Peninsula to Kyushu. Tomioka, Amakusa (type locality).

### **Family Periplomatidae Dall, 1895 Ryugu-hagoromogai-ka**

#### **Genus Periploma Schumacher, 1817 Ryugu-hagoromogai-zoku**

1817 *Periploma* Schumacher, *Essai Vers Test.*, 115. Type (M): *Periploma inaequalvis* Schumacher, 1817 [= *Corbula margaritacea* Lamarck, 1801].

#### **Subgenus Halistrepta Dall, 1904 Chijiwa-ryugu-hagoromogai-azoku**

1904 *Halistrepta* Dall, *Nautilus*, **15**, 123. Type (M): *Periploma sulcata* Dall, 1904.

*Periploma (Halistrepta?) pacifica* Okutani, 1962 Izuno-hagoromogai (Okutani) Pl. 8, fig. 2.

1962 *Periploma (Halistrepta?) pacifica* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 31, pl. 3, fig. 5; pl. 4, fig. 2.

2000 *Periploma (Halistrepta) pacifica*: Okutani, Mar. Moll. Japan, 1034, 1037, pl. 515, fig. 2.

Loc. Wabuka, Kushimoto, 550 m; off Shionomisaki, 600 m (Nagai).

Dist. Off Miyakejima Is. (type locality).

### **Family Tracidae Stoliczka, 1870 Suemonogai-ka**

#### **Genus *Asthenothaerus* Carpenter, 1864 Semata-suemonogai-zoku**

1864 *Asthenothaerus* Carpenter, Ann. Mag. Nat. Hist., [3], 13, 311. Type (M): *Asthenothaerus villosior* Carpenter, 1864.

*Asthenothaerus isaotakii* Okutani, 1964 Taki-suemonogai (Okutani) Pl. 8, fig. 3.

1964 *Asthenothaerus isaotakii* Okutani, Venus, 23(2), 84-85, text-fig. 6.

2000 *Asthenothaerus isaotakii*: Okutani, Mar. Moll. Japan, 1038-1039, pl. 517, fig. 6.

Loc. Off Shionomisaki, 300-350 m (Nagai); southwest of Shionomisaki, 500 m (Nagai).

Dist. Sagami Bay (type locality) and Enshunada Sea.

### **Family Verticordiidae Stoliczka, 1871 Otohime-gokorogai-ka**

#### **Genus *Halicardia* Dall, 1895 Nippon-otohime-gokorogai-zoku**

1895 *Halicardia* Dall, Proc. U. S. Nat. Mus., 17(1032), 697. Type (OD): *Mytilimeria flexuosa* Verrill & Smith in Verrill, 1881.

*Halicardia nipponensis* Okutani, 1957 Nippon-otohime-gokorogai (Shikama) Pl. 2, fig. 7.

1957 *Halicardia nipponensis* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (17), 28, pl. 1, figs. 2-3, 6-7.

1961 *Halicardia nipponensis*: Habe, Col. Ill. Shells Japan, 2, 145, pl. 65, fig. 5.

1962 *Halicardia (Halicardia) nipponensis*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 31-32, pl. 2, fig. 3; pl. 4, fig. 13.

1962 *Halicardia nipponensis*: Shikama, Sci. Rep. Yokohama Nat. Univ., [2], 8, 54, pl. 3, figs. 8a-c.

1966 *Halicardia nipponensis*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (46), 9.

1968 *Halicardia nipponensis*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (56), 17-18.

2000 *Halicardia nipponensis*: Okutani, Mar. Moll. Japan, 1040-1041, pl. 518, fig. 6.

Loc. Off Shionomisaki, 600 m (Nagai).

Dist. Kashimanada Sea; Sagami Bay (type locality); off Sanriku.

#### **Genus *Haliris* Dall, 1886 Uneshige-gokorogai-zoku**

1886 *Harilis* Dall, Bull. Mus. Comp. Zool. Harvard, 12(6), 287. Type (OD): *Verticordia fischeriana* Dall, 1881.

**Subgenus *Setaliris* Iredale, 1930 Hishi-otohime-gokorogai-azoku**

1930 *Setaliris* Iredale, Rec. Austral. Mus., 17, 388. Type (OD): *Verticordia setosa* Hedley, 1907.

*Haliris (Setaliris) makiyamai* (Habe in Kuroda, 1952) Hishi-otohime-gokorogai (Kuroda) Pl. 8, fig. 4.

1952 *Verticordia (Haliris) makiyamai* Habe in Kuroda, Venus, 17(1): 10, pl. 1, figs. 8-9.

1977 *Haliris (Setaliris) makiyamai*: Habe, Syst. Moll. Japan, Biv. Scaph., 316, pl. 66, fig. 5.

2000 *Haliris (Setaliris) makiyamai*: Okutani, Mar. Moll. Japan, 1040-1041, pl. 518, fig. 3.

Loc. Sakai, Minabe (Ikebe).

Dist. Izu Isls. to Kyushu.

**Genus *Lyonsiella* M. Sars in G. Sars, 1872 Mijin-kigokorogai-zoku**

1872 *Lyonsiella* M. Sars in G. Sars, Remark. Forms Life, 25. Type (M): *Pecchiolia abyssicola* G. Sars, 1872.

*Lyonsiella parva* Okutani, 1962 Mijin-kigokorogai (Okutani) Pl. 8, fig. 5.

1962 *Lyonsiella parva* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 29, pl. 3, fig. 7.

1966 *Lyonsiella parva*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (46), 9, pl. 1, fig. 9.

1968 *Lyonsiella parva*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (56), 17.

2000 *Lyonsiella parva*: Okutani, Mar. Moll. Japan, 1040-1041, pl. 518, fig. 7.

Loc. Off Tanami, Kushimoto, 400 m (Nagai).

Dist. Off Miyake Is. (type locality) and Sagami Bay.

**Genus *Euciroa* Dall, 1881 Gin-sunagogai-zoku**

1881 *Euciroa* Dall, Bull. Mus. Comp. Zool. Harvard, 9, 106. Type (OD): *Verticordia elegantissima* Dall, 1881.

*Euciroa millegemmata* Kuroda & Habe, 1952 Chirimen-gin-sunagogai (Kuroda) Pl. 8, fig. 6.

1952 *Euciroa millegemmata* Kuroda & Habe in Kuroda, Japan. Jour. Malac., 17(1), 14, pl. 1, figs. 12-15.

1977 *Euciroa millegemmata*: Habe, Syst. Moll. Japan, Biv. Scaph., 317.

Loc. Off Tanabe, 216 m (Koyama).

Dist. Off Kochi (type locality).

**Family Poromyidae Dall, 1886 Sunamegai-ka****Genus *Cetoconcha* Dall, 1886 Bidoro-sunamegai-zoku**

1886 *Cetoconcha* Dall, Bull. Mus. Comp. Zool. Harvard, 12(6), 280. Type (OD): *Lyonsia bulla* Dall, 1878.

*Cetoconcha tenuissima* Okutani, 1966 Yowa(-bidoro)-sunamegai (Habe)

1966 *Cetoconcha tenuissima* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (46), 9-10, pl. 1, fig. 6; text-fig. 5.

2000 *Cetoconcha tenuissima*: Okutani, Mar. Moll. Japan, 1042-1043, pl. 519, fig. 7.

Loc. Off Tanami, 400 m (Nagai).

Dist. Off Hachijo Is. (type locality).

Remarks. The place where the specimens collected by Nagai are kept is unknown.

**Family Cuspidariidae Dall, 1886** Shakushigai-ka

**Genus Cuspidaria Nardo, 1840** Shakushigai-zoku

1840 *Cuspidaria* Nardo, Atti Riun. Sci. Ital., 1(1839), 202. Type (M): *Cuspidaria typus* Nardo, 1840 [= *Tellina cuspidata* Olivi, 1792].

*Cuspidaria obtusirostris* Okutani, 1962 Watazoko-shakushigai (Okutani) Pl. 8, fig. 7.

1962 *Cuspidaria obtusirostris* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 34-35, pl. 3, fig. 16; pl. 5, figs. 5-5a.

1966 *Cuspidaria obtusirostris*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (46), 10, pl. 1, fig. 10.

1968 *Cuspidaria obtusirostris*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (56), 19.

2000 *Cuspidaria obtusirostris*: Okutani, Mar. Moll. Japan, 1044-1045, pl. 520, fig. 9.

Loc. Off Esuzaki, Susami, 700 m (Nagai).

Dist. Izu Archipelago and Sagami Bay (type locality).

*Cuspidaria sadoensis* Okutani & Ito, 1983 Mijin-shakushigai (Okutani & Ito) Pl. 8, fig. 8.

1983 *Cuspidaria sadoensis* Okutani & Ito, Venus, 42(2), 167-169.

2000 *Cuspidaria sadoensis*: Okutani, Mar. Moll. Japan, 1044-1045, pl. 520, fig. 15.

Loc. Off Kushimoto, 400 m (Ikebe).

Dist. Sado Strait (type loc.) and Kii Peninsula.

*Cuspidaria mitis* Prashad, 1932 Yowa-shakushigai (Shikama) Pl. 8, fig. 9.

1932 *Cuspidaria mitis* Prashad, Monogr. Siboga Exp., 53c, 328, pl. 7, figs. 7-7a.

1962 *Cuspidaria* cf. *mitis*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 33, pl. 3, fig. 13; pl. 5, figs. 7-7a.

1968 *Cuspidaria mitis*: Okutani, Bull. Tokai Reg. Fish. Res. Lab., (56), 18-19.

2000 *Cuspidaria mitis*: Okutani, Mar. Moll. Japan, 1044-1045, pl. 520, fig. 10.

Loc. Off Shionomisaki, 500 m (Nagai).

Dist. Java Sea (type locality).

*Cuspidaria kyushuensis* Okutani, 1962 Kyushu-shakushigai (Okutani) Pl. 8, fig. 10.

1962 *Cuspidaria kyushuensis* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 35, pl. 3, fig. 12.

2000 *Cuspidaria kyushuensis*: Okutani, Mar. Moll. Japan, 1044-1045, pl. 520, fig. 11.

Loc. Off Shionomisaki, 550-600 m (Nagai).

Dist. Off Kushikino (type locality).

**Genus Cardiomya A. Adams, 1864** Hime-shakushigai-zoku

1864 *Cardiomya* A. Adams, Ann. Mag. Nat. Hist., [3], 13, 208. Type (M): *Neaera gouldiana* Hinds, 1843.

*Cardiomya nipponica* (Okutani, 1962) Sekiguchi-hime-shakushigai (Okutani & Sakurai) Pl. 2, fig. 8.

1962 *Cuspidaria* (*Cardiomya*) *abyssicola nipponica* Okutani, Bull. Tokai Reg. Fish. Res. Lab., (32), 35-36, pl. 3, figs. 14-15, pl. 5, figs. 6-6a.

1964 *Cardiomya nipponica*: Okutani & Sakurai, Bull. Nat. Sci. Mus. Tokyo, 7(1), 22-23, Fig. 2;



pl. 1, fig. 6.

2000 *Cardiomya nipponica*: Okutani, Mar. Moll. Japan, 1046-1047, pl. 521, fig. 22.

Loc. Off Kushimoto, 400 m (Ikebe).

Dist. Sagami Bay (type locality), Kashimanada Sea.

*Cardiomya kashimana* Okutani & Sakurai, 1964 Ara-hime-shakushigai (Okutani & Sakurai) Pl. 8, fig. 11.

1964 *Cardiomya kashimana* Okutani & Sakurai, Bull. Nat. Sci. Mus. Tokyo, 7(1), 22-23, text-fig. 1; pl. 1, figs. 3-4.

1995 *Cardiomya kashimana*: Tsuchida & Kurozumi, Jour. Nat. Hist. Mus. Inst. Chiba, 3(2), 185.

2000 *Cardiomya kashimana*: Okutani, Mar. Moll. Japan, 1046-1047, pl. 521, fig. 25.

Loc. Off Shionomisaki, 110 m (Nagai).

Dist. Kashima-Nada Sea, 200-360 m; Sagami Bay, 740-1030 m.

*Cardiomya robiginosa* Okutani & Sakurai, 1964 Sabi-hime-shakushigai (Okutani) Pl. 8, fig. 12.

1964 *Cardiomya robiginosa* Okutani & Sakurai, Bull. Nat. Sci. Mus. Tokyo, 7(1), 23-24, pl. 1, fig. 7.

2000 *Cardiomya robiginosa*: Okutani, Mar. Moll. Japan, 1046-1047, pl. 521, fig. 24.

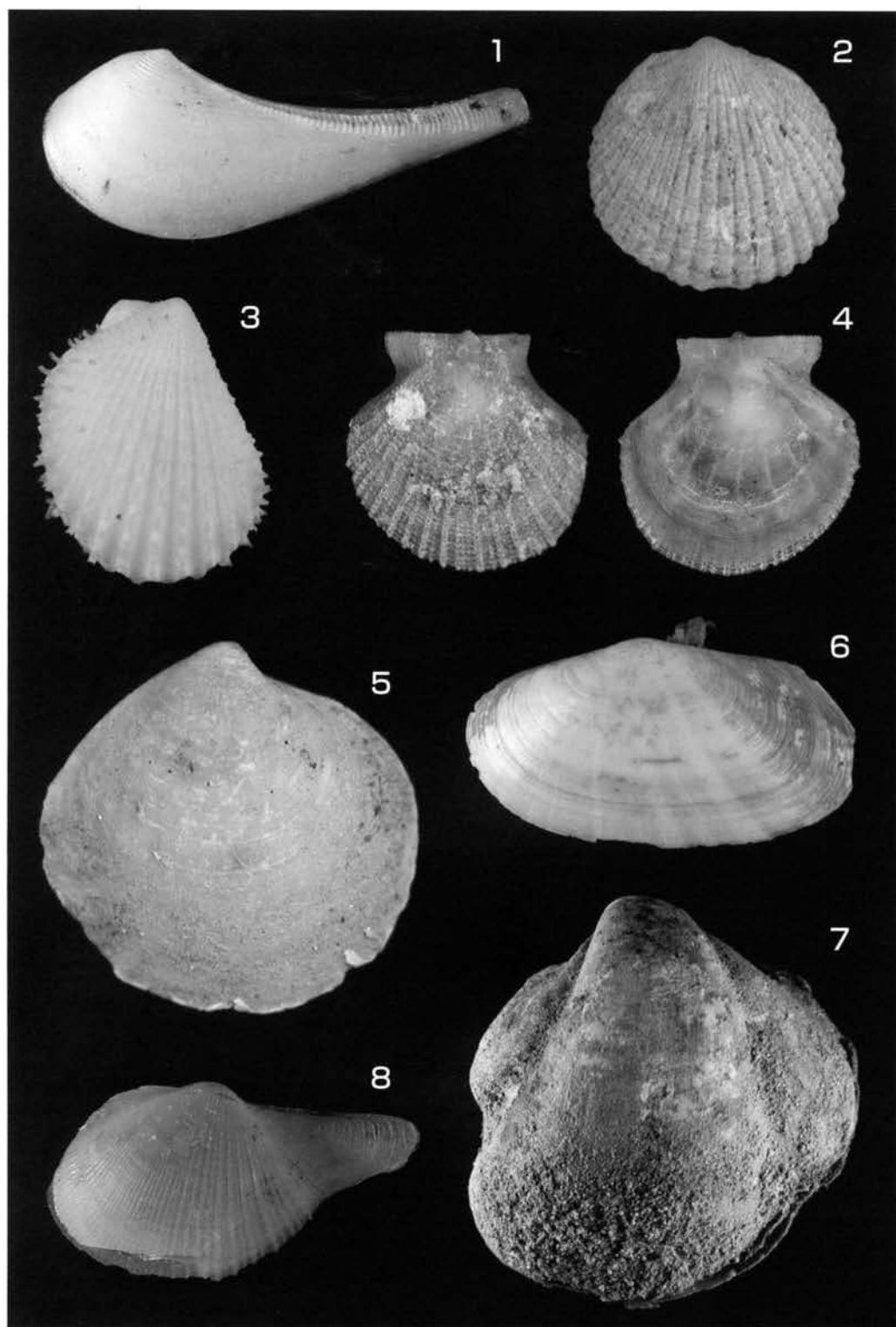
Loc. Off Shionomisaki, 500 m (Nagai).

Dist. Sagami Bay (type locality).

# **P L A T E S**

## PLATE 2

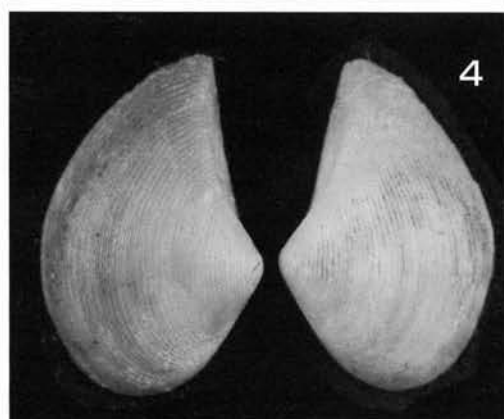
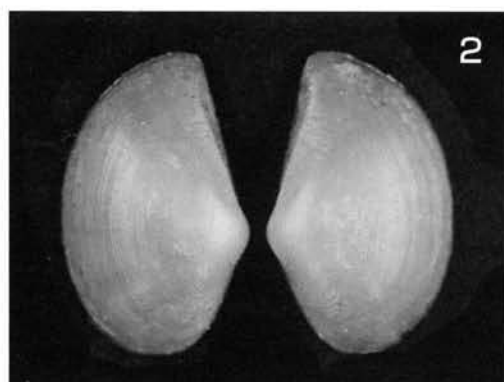
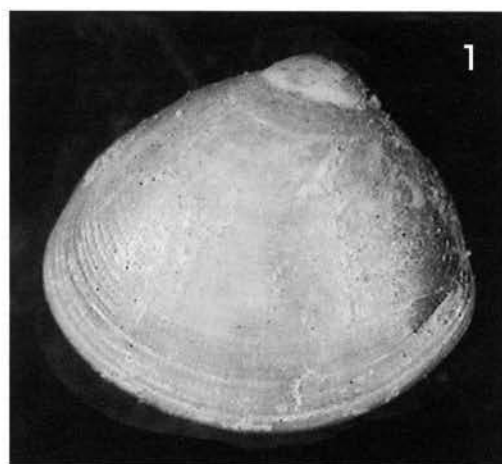
- 1 *Nuculana (Thestyleda) tanseimaruae* Tsuchida & Okutani, 1985  
(Tansei-) Enaga-robaigai,  $15.3 \times 5.89$  mm, off Shionomisaki, 450-500 m
- 2 *Tucetona* cf. *sibogae* Matsukuma, 1982  
Karekusa-uchiwagai,  $15.1 \times 15.8$  mm, off Shionomisaki, 100 m
- 3 *Lima ogasawarensis* Habe, 1993  
Ogasawara-minogai,  $8.70 \times 11.8$  mm, Suga fishing port, Kamiura, Kushimoto
- 4 *Parvamussium* sp.  
 $6.56 \times 8.35$  mm, off Shionomisaki, 320 m
- 5 *Axinulus simplex* (Verrill & Bush, 1898)  
Yogore-hanashigai,  $4.09 \times 3.79$  mm, off Shionomisaki, 500 m
- 6 *Gobraeus oriens* (Deshayes, 1855)  
Hanayaka-masuogai,  $55.3 \times 29.3$  mm, Takatomi, Kushimoto
- 7 *Halicardia nipponensis* Okutani, 1957  
Nippon-otohime-gokorogai,  $35.6 \times 39.0$  mm, off Shionomisaki, 600 m
- 8 *Cardiomya nipponica* (Okutani, 1962)  
Sekiguchi-hime-shakushigai,  $11.6 \times 6.12$  mm, off Kushimoto, 400 m



## PLATE 3

- 1 *Nucula* sp.  
3.14 × 2.61 mm, off Shionomisaki, 650 m
- 2 *Neilonella soyoae* Habe, 1958  
Soyo-hatomugi-sodegai, 10.3 × 7.19 mm, southwest of Kushimoto,  
500 m
- 3 *Neilonella japonica* Okutani, 1962  
Nippon-hatomugi-sodegai, 6.12 × 5.17 mm, off Shionomisaki, 1400m
- 4 *Neilonella kirai* Habe, 1953  
Kira-hatomugi-sodegai, 11.2 × 7.41 mm, off Kii-Oshima, 200 m
- 5 *Bathymalletia takaii* (Okutani, 1968)  
Takai-sodegai, 12.0 × 7.42 mm, off Shionomisaki, 650 m
- 6 *Tindaria* cf. *similis* Okutani, 1962  
Fukami-sodegai, 4.28 × 3.91 mm, off Wabuka, Kushimoto, 300 m
- 7 *Nuculana* (*Thestyleda*) *sagamiensis* Okutani, 1962  
Sagami-arabori-robaigai, 7.66 × 3.68 mm, off Shionomisaki, 180-200 m

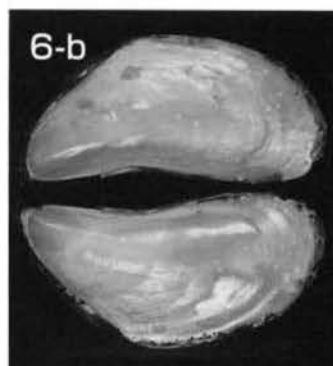
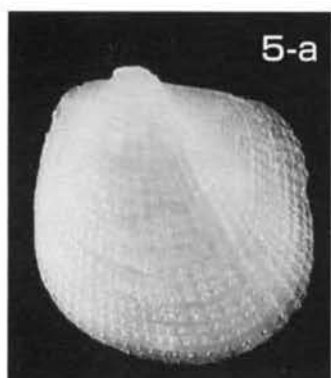
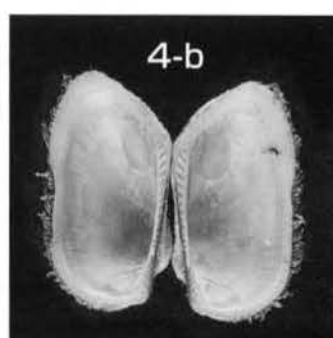
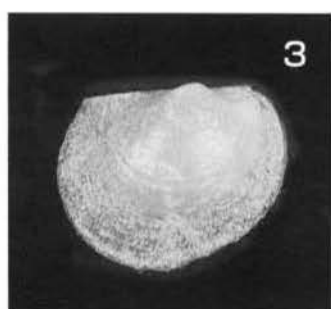
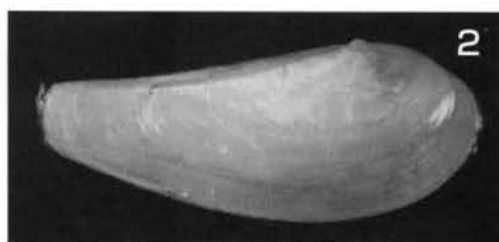
PLATE 3



## PLATE 4

- 1 *Nuculana (Thestylea) subscalata* Okutani, 1962  
Tsugino-enaga-robaigai,  $10.5 \times 3.98$  mm, off Shionomisaki, 1200 m
- 2 *Tenuileda ikebei* (Suzuki & Kanehara, 1936)  
Kagero-sodegai,  $13.1 \times 6.85$  mm, Wabuka, Kushimoto, 600 m
- 3 *Bathyarca nipponica* Okutani, 1962  
Sagami-watazoko-egai,  $5.01 \times 3.70$  mm, off Shionomisaki, 420 m
- 4a,b *Mimarcaria* cf. *aizoi* (Sakurai, 1969)  
Ryugu-washinohagai,  $9.48 \times 5.52$  mm, off Kushimoto
- 5a,b *Cratis ohashii* Hayami & Kase, 1993  
Ohashi-shirasunagai-modoki,  $2.37 \times 2.75$  mm, off Shionomisaki
- 6a,b *Perna viridis* (Linnaeus, 1758)  
Midori-igai,  $47.9 \times 98.1$  mm, Kushimoto
- 7a,b *Adipicola longissima* (Thiele & Jaekel, 1932)  
Suehiro-mayugai,  $21.3 \times 9.57$  mm, off Susami, 432-468 m (b: animal in fruit of Nippa-palm)
- 8 *Lithophaga (Leiosolenus) obesa* (Philippi, 1847)  
Sekitori-ishimategai,  $55.2 \times 22.4$  mm, Takatomi, Kushimoto
- 9 *Lithophaga (Diberus) divaricalx* Iredale, 1939  
Suehiro-ishimategai,  $21.3 \times 9.57$  mm, Sakai, Minabe
- 10 *Lithophaga (Diberus)* cf. *canalifera* Hanley, 1844  
Kongo-ishimategai,  $30.0 \times 10.5$  mm, Kamiura, Kushimoto

PLATE 4

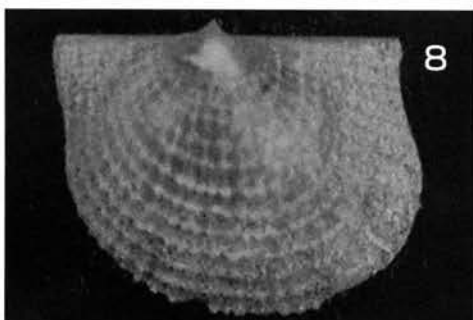
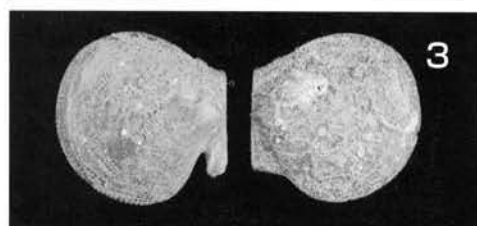




## PLATE 5

- 1 *Lima sagamiensis* Masahito, Kuroda & Habe in Kuroda et al., 1971  
Sagami-maru-minogai,  $3.73 \times 4.37$  mm, Sakai, Minabe
- 2 *Delectopecten alcocki* (Smith, 1904)  
Ginrin-hari-nadeshikogai,  $15.9 \times 16.6$  mm, off Shionomisaki, 600 m
- 3 *Delectopecten vancouverensis* (Whiteaves, 1893)  
O-hari-nadeshikogai,  $14.9 \times 13.9$  mm, Kushimoto
- 4 *Propeamussium siratama* (Oyama, 1951)  
Shiratama-tsukihigai,  $11.0 \times 10.4$  mm, off Shionomisaki, 500 m
- 5 *Cyclopecten bistratus* (Dall, 1916)  
Koshi-hari-nadeshikogai,  $6.34 \times 6.64$  mm, off Shionomisaki, 600 m
- 6 *Cyclopecten nakaii* Okutani, 1962  
Nakai-nishikigai,  $9.45 \times 10.4$  mm, off Wabuka, Kushimoto, 500 m
- 7 *Cyclopecten nipponensis* Okutani, 1962  
Nippon-watazoko-nadeshikogai,  $5.50 \times 5.32$  mm, off Esuzaki,  
Susami, 1200 m
- 8 *Chlamydella incubata* Hayami & Kase, 1993  
Komochi-hari-nadeshikogai,  $15.9 \times 16.4$  mm, Shimokusui, Gobo

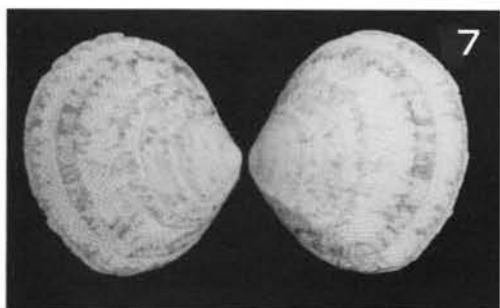
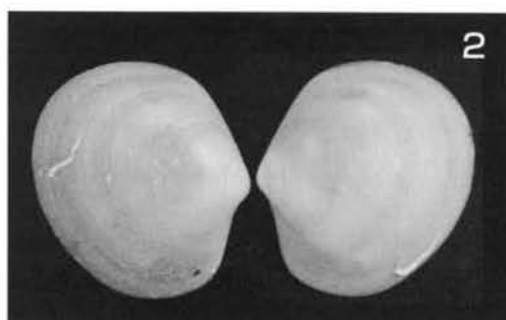
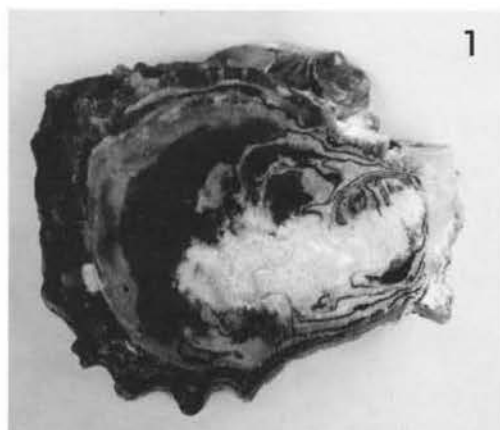
PLATE 5



## PLATE 6

- 1 *Saccostrea cucullata* (Born, 1778)  
Ohaguro-gaki-modoki,  $44.1 \times 39.9$  mm, Nishihiro, Hirokawa, Arita
- 2 *Cycladicama oblonga* (Sowerby in Deshayes, 1855 )  
Nekoze-shiogamagai,  $14.4 \times 18.0$  mm, off Shionomisaki, 160 m
- 3 *Megacardita coreensis* (Deshayes, 1854)  
Hataune-fumigai,  $6.94 \times 7.99$  mm, off Shionomisaki, 160 m
- 4 *Vasticardium pectiniforme* (Born, 1780)  
Asa-zarugai,  $24.7 \times 38.3$  mm, Kamiura, Kushimoto
- 5 *Tridacna (Flodacna) squamosa* Lamarck, 1819  
Hire-jakogai,  $118 \times 72.6$  mm, stranded at Ogokuda, Shionomisaki
- 6 *Loxoglypta transcalpta* (Sowerby, 1915)  
Hasume-zakuragai,  $16.6 \times 9.17$  mm, Tsuinoura, mouth of Tonda river
- 7 *Scutarcopagia scobinata* (Linnaeus, 1758)  
Same-zaragai,  $37.9 \times 41.8$  mm, stranded at Ogokuda, Shionomisaki
- 8 *Jactellina obliquistriata* (Sowerby, 1868)  
Goshiki-zakuragai,  $9.44 \times 7.43$  mm, stranded at Ogokuda, Shionomisaki

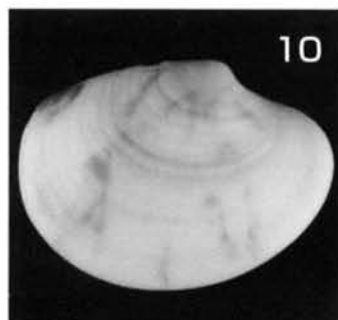
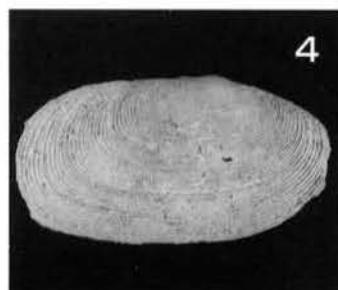
PLATE 6



## PLATE 7

- 1 *Elliptotellina kikaizimana* (Nomura & Zinbo, 1934)  
Kikai-himezaragai,  $10.8 \times 6.20$  mm, off Shionomisaki, 70 m
- 2 *Elliptotellina* sp.  
Kinu-himezaragai (new vernacular name),  $9.72 \times 5.64$  mm, off Shionomisaki, 100 m
- 3 *Elliptotellina flabellum* (Viader, 1951)  
Arabori-himezaragai (new vernacular name),  $9.67 \times 4.87$  mm, off Shionomisaki, Kushimoto
- 4 *Kermadysmea galathea* Powell, 1958  
Sudare-yoshigai,  $52.8 \times 28.8$  mm, off Shionomisaki, 80 m
- 5 *Soletellina petalina* (Deshayes, 1855)  
Ashibe-masuogai,  $16.1 \times 8.61$  mm, Nunobiki, Wakayama
- 6 *Solen kikuchii* Cosel, 2002  
Chigo-mategai,  $20.9 \times 7.47$  mm, Nagusahama, Wakayama
- 7 *Glossocardia stoliczkana* Prashad, 1932  
Mikado-tsukiyomigai,  $22.9 \times 7.47$  mm, off Shionomisaki, 100 m
- 8 *Veremolpa scabra* (Hanley, 1845)  
Taiwan-hime-kanokoasari,  $9.76 \times 8.31$  mm, off Kushimoto, 80 m
- 9 *Katelsysia japonica* (Gmelin, 1791)  
Sudare-hamaguri,  $48.7 \times 41.7$  mm, Yukashigata, Yukawa, Nachi-Katsuura
- 10 *Sunettina langfordi* Habe, 1953  
Okinawa-wasuregai,  $16.3 \times 11.5$  mm, Kamiharaido, Gobo
- 11 *Petricola* sp.  
Usukara-shiotsugai,  $13.6 \times 9.06$  mm, Nagusahama, Wakayama
- 12 *Glauconome chinensis* Gray, 1828  
Hanagumorigai,  $23.7 \times 13.9$  mm, Nishihiro beach, Hirokawa, Arita

PLATE 7



## PLATE 8

- 1 *Myadropsis brevispinosus* Habe, 1962  
Toge-yamazaki-suemonogai,  $7.98 \times 4.16$  mm, off Shirahama, 30 m
- 2 *Periploma (Halistrepta?) pacifica* Okutani, 1962  
Izuno-hagoromogai,  $8.01 \times 5.83$  mm, Wabuka, Kushimoto, 550 m
- 3 *Asthenothaerus isaotakii* Okutani, 1964  
Taki-suemonogai,  $5.82 \times 4.58$  mm, off Shionomisaki, 300-350 m
- 4 *Haliris (Setaliris) makiyamai* (Habe in Kuroda, 1952)  
Hishi-otohime-gokorogai,  $36.1 \times 4.80$  mm, Sakai, Minabe
- 5 *Lyonsiella parva* Okutani, 1962  
Mijin-kigokorogai,  $5.78 \times 5.06$  mm, off Tanami, Kushimoto, 400 m
- 6 *Euciroa millegemmata* Kuroda & Habe, 1952  
Chirimen-gin-sunagogai,  $15.5 \times 12.8$  mm, off Tanabe, 216 m
- 7 *Cuspidaria obtusirostris* Okutani, 1962  
Watazoko-shakushigai,  $7.57 \times 5.46$  mm, off Esuzaki, Susami, 700 m
- 8 *Cuspidaria sadoensis* Okutani & Ito, 1983  
Mijin-shakushigai,  $4.13 \times 2.15$  mm, off Kushimoto, 400 m
- 9 *Cuspidaria mitis* Prasad, 1932  
Yowa-shakushigai,  $15.9 \times 7.13$  mm, off Shionomisaki, 500 m
- 10 *Cuspidaria kyushuensis* Okutani, 1962  
Kyushu-shakushigai,  $12.8 \times 9.39$  mm, off Shionomisaki, 550-600 m
- 11 *Cardiomya kashimana* Okutani & Sakurai, 1964  
Ara-hime-shakushigai,  $11.6 \times 6.12$  mm, off Shionomisaki, 110 m
- 12 *Cardiomya robiginosa* Okutani & Sakurai, 1964  
Sabi-hime-shakushigai,  $21.3 \times 12.9$  mm, off Shionomisaki, 500 m

PLATE 8

